

Department of Surgery  
The Ohio State University Medical Center

# 2011 Annual Report



# Department of Surgery 2011 Annual Report

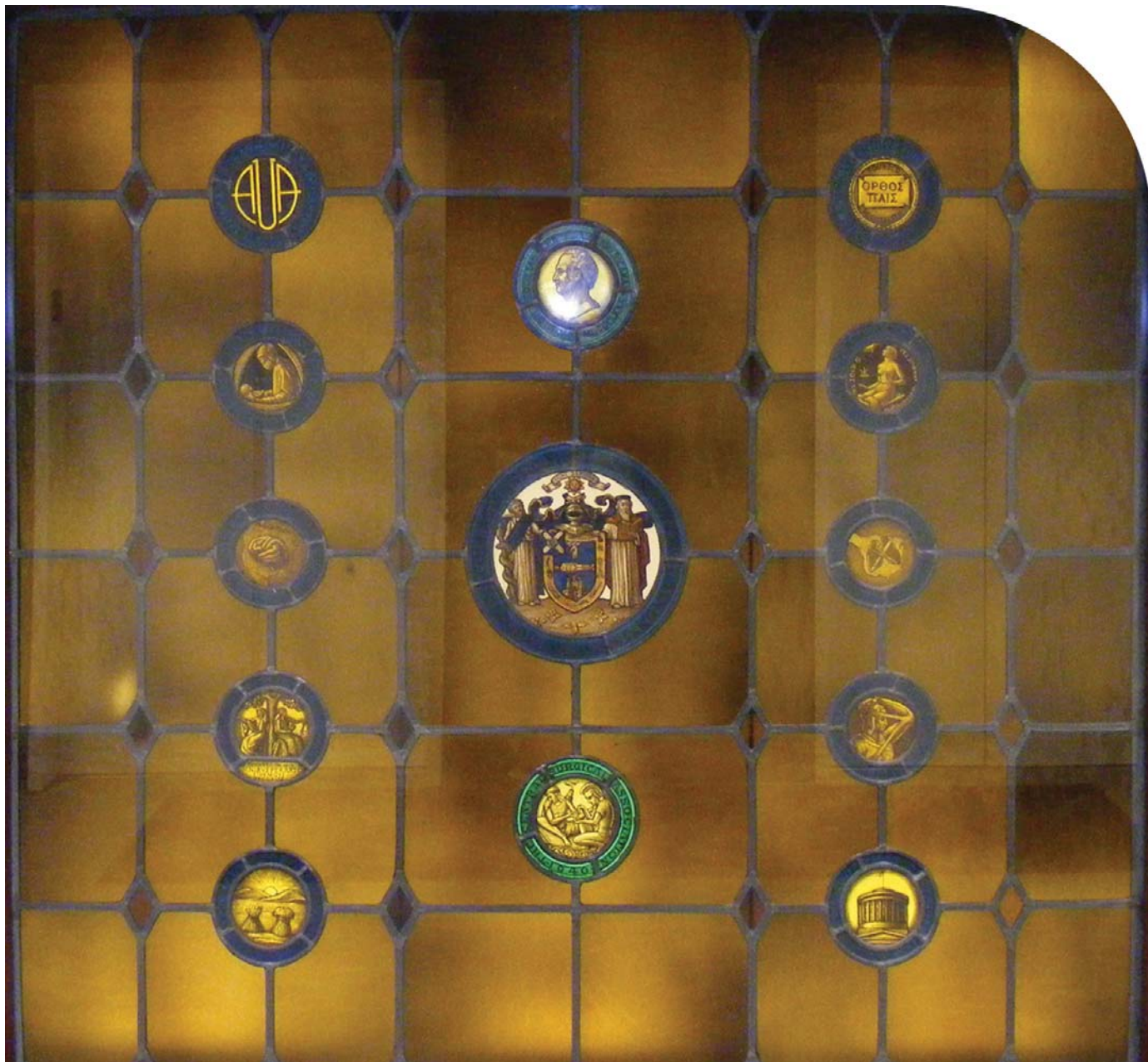
July 1, 2010 – June 30, 2011

Department of Surgery  
The Ohio State University Medical Center  
395 West 12th Avenue  
Columbus, Ohio 43210-1267

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## Department of Surgery



# Overview



**E. Christopher Ellison, MD**  
Chairman, Department of Surgery

**T**he missions of the Department of Surgery are consistent with those of The Ohio State University College of Medicine. The department's missions are the delivery of high-quality and safe patient care, the contribution to innovations in medicine through basic and translational research and clinical outcomes studies, and the education of medical students and postgraduate trainees. This report summarizes the changes and accomplishments in the department from July 1, 2010 through June 30, 2011.

## Organization

The Department of Surgery comprises eight specialty divisions: Cardiac Surgery; Critical Care, Trauma, and Burn; General and Gastrointestinal Surgery; Pediatric Surgery; Surgical Oncology; Thoracic Surgery; Transplantation; and Vascular Diseases and Surgery. In addition, the Center for Minimally Invasive Surgery, a multidisciplinary organization within the department, is dedicated to developing and implementing minimally invasive technologies and procedures. Plastic and Reconstructive Surgery became a department November 1, 2010 and are included in this report during this transitional year.

## Faculty

Recruitment efforts brought ten new faculty members to the department this year. The Center for Minimally Invasive Surgery made three one-year clinical faculty appointments. The Division of Cardiac Surgery added two faculty members, and the Division of Care, Trauma, and Burn added one new faculty member. The Division of General and Gastrointestinal Surgery made three one-year clinical faculty appointment. The Division of Pediatric Surgery added one faculty member, the Division of Surgical Oncology added two faculty members, and the Division of Thoracic Surgery appointed one new faculty member. A complete list of this year's faculty appointments begins on page 7 of this report. Nearly all eligible faculty have joined the new Faculty Group Practice of the Office of Health Sciences effective July 1, 2011.



**Clinical Care**

The Department of Surgery provides all aspects of major surgical care. This year, the department performed 32,453 surgical procedures and received 64,267 outpatient visits. Outpatient services are available at numerous sites, including:

- The Arthur G. James Cancer Hospital and Richard J. Solove Research Institute, 300 West 10th Avenue
- Cramblett Hall Medical Clinic, 456 West 10th Avenue
- General Surgery at Knightsbridge, 4830 Knightsbridge Boulevard, Suite J
- JamesCare Comprehensive Breast Cancer Center, 1145 Olentangy River Road
- The Martha Morehouse Medical Plaza, 2050 Kenny Road
- Nationwide Children's Hospital, 700 Children's Drive
- The Ohio State University Medical Center, 450 West 10th Avenue
- The Ohio State University Medical Center Services, 770 Kinnear Road
- The Richard M. Ross Heart Hospital, 452 West 10th Avenue
- University Hospital East, 1492 East Broad Street

In addition we have outreach programs in vascular surgery in Bellefontaine, Bucyrus and Wooster, Ohio.

**Research**

Research efforts continue to focus on three major areas: wound healing, vascular biology and transplantation, and tumor biology. Additionally, we are beginning a new program in regenerative medicine under the leadership of Chandan Sen, PhD, Vice-Chair of Research.

This year, new research funding awarded through The Ohio State University Research Foundation to principal investigators in the Department of Surgery totaled more than \$6.6 million. New federal funding was more than \$4.8 million, or 72 percent of total funding. New non-federal funding was more than \$1.8 million, or 28 percent of the total.

**Education**

Twenty-one residents and fellows completed their training programs this year. Three went on to community practice, eight to further training, nine to academic appointments, and one is serving at a United States Army hospital. Over two hundred medical students from the College of Medicine perform clinical rotations on our surgical services. We re-engineered our honors program in surgery, making it practical and up-to-date for our students entering careers in surgery. Twenty-one students entered surgical training this academic year.

## Department Statistics

Full-Time Faculty	83
Residents and Fellows	64
ACGME-Accredited Surgical Residencies	2
ACGME-Approved Specialty Certification Programs	3
Approved Specialty Fellowships	7
OR Procedures	32,453
Outpatient Visits	64,267
Admissions	5,235
Patient Days	37,737
Average Length of Stay (Days)	6.37

## Department Administration

**E. Christopher Ellison, MD**

Chairman

**Robert L. Ruberg, MD**

Senior Vice Chairman for Administrative Affairs

**W. Scott Melvin, MD**

Vice Chairman for Academic Affairs

**Mark W. Arnold, MD**

Vice Chairman for Surgical Education

**Chandan K. Sen, PhD**

Vice Chairman for Research

**Steven M. Steinberg, MD**

Vice Chairman for Clinical Affairs

**Jerome A. Johnson, PhD**

Administrator

**K. Christopher Kaiser**

Chief Operating Officer, OSU Surgery, LLC



*Ellison*



*Ruberg*



*Melvin*



*Arnold*



*Sen*



*Steinberg*



*Johnson*



*Kaiser*



## Administrative Staff

**Mark Bishop**

Systems Analyst, Surgery Information Systems

**Mark Dickman**

Director, Surgery Information Systems

**Elizabeth Hanson**

General Surgery Residency Manager

**Megan Guth**

Systems Analyst, Surgery Information Systems

**K. Christopher Kaiser**

Chief Operating Officer, OSU Surgery, LLC

**Dennis Mathias**

Publications Editor

**Richard Meyers**

Fiscal Associate

**Anna Patterson**

General Surgery Residency Coordinator

**Connie Roberson**

Fiscal Manager

**Donna Sampsill**

Administrative Assistant to the Chairman

**Roxanne Shull**

Research Coordinator

**Lynnsay Sinclair**

Student Coordinator

**Renee Troyer**

Executive Assistant to the Chair and Vice Dean for Clinical Affairs

**Maxine Vargas**

Human Resources Administrator

## Division Chiefs

**William B. Farrar, MD**

Surgical Oncology

**Jonathan I. Groner, MD**

Pediatric Surgery (interim)

**Mitchell L. Henry, MD**

Transplantation

**Robert S. D. Higgins, MD, MSHA**

Cardiac Surgery

**W. Scott Melvin, MD**

General and Gastrointestinal Surgery

**Michael J. Miller, MD**

Plastic Surgery

**Steven M. Steinberg, MD**

Critical Care, Trauma, and Burn

**Patrick Ross, Jr, MD, PhD**

Thoracic Surgery

**Patrick S. Vaccaro, MD**

Vascular Diseases and Surgery

## Faculty Appointments

### **Sherif R. Abdel-Misih, MD**

Assistant Professor of Clinical Surgery, Division of Surgical Oncology

**BA:** Franklin & Marshall College, Lancaster, Pa., 1997

**MD:** Jefferson Medical College, Philadelphia, Pa., 2003

**Specialty Training:** Master of medical science, Hahnemann University, Philadelphia, Pa., 1999; residency in general surgery, Cleveland Clinic, Cleveland, Oh., 2008; fellowship in surgical oncology, The Ohio State University, 2010

**Appointment:** 2010

**Specialty Interests:** Minimally invasive surgical oncology, peritoneal carcinomatosis, hepato-pancreatico-biliary cancers, gastrointestinal oncology, sarcoma, melanoma, endocrine cancer

**Research Interests:** Peritoneal carcinomatosis, pancreatic cancer



*Abdel-Misih*

### **Vincent Daniel, MD**

Assistant Professor of Clinical Surgery, Division of Thoracic Surgery

**BA:** Vanderbilt University, Nashville, Tn., 1994

**MD:** University of Tennessee, Memphis, Tn., 2001

**Specialty Training:** Residency in general surgery, The Johns Hopkins Hospital, Baltimore, Md.; residency in cardiothoracic surgery, Massachusetts General Hospital, Boston, Ma.

**Appointment:** 2011

**Specialty Interests:** Lung cancer, esophageal cancer, tracheal surgery, mediastinal tumors, esophageal motility disorders, minimally invasive thoracic surgery

**Research Interests:** Molecular markers of lung and esophageal cancer, clinical trials for lung and esophageal cancer, animal models of lung



*Daniel*

### **Daniel S. Eiferman, MD**

Assistant Professor of Surgery; Assistant Program Director of Surgical Critical Care Fellowship

**BA:** Northwestern University, Evanston, Ill., 1999

**MD:** University of Kentucky, Lexington, Ky., 2003

**Specialty Training:** Residency in general surgery, Rush University Medical Center, Chicago, Ill., 2009; research fellowship in cardiac surgery, Emory University, Atlanta, Ga., 2006; thoracic fellowship, Emory University, Atlanta, Ga., 2009; fellowship in surgical critical care, The Ohio State University, 2010

**Appointment:** 2010

**Specialty Interests:** Trauma, acute care surgery, surgical critical care

**Research Interests:** Critical care outcomes .



*Eiferman*

**Robert S. D. Higgins, MD, MSHA**

John H. and Mildred C. Lumley Medical Research Chair; Professor of Surgery; Chief, Division of Cardiac Surgery; Director, Comprehensive Transplant Center

**B.S.:** Dartmouth College, Hanover, NH, 1981

**M.D.:** Yale University School of Medicine, New Haven, Ct., 1985

**Specialty Training:** General surgery residency, Hospitals of the University Health Center, Pittsburgh, Pa.; Cardiothoracic surgery fellowship, Yale University School of Medicine, New Haven, Ct.

**Appointment:** 2010

**Specialty Interests:** Transplantation and mechanical circulatory support, minimally invasive cardiac surgery

**Research Interest:** Outcome assessment for heart failure



Higgins

**Ahmet Kilic, MD**

Assistant Professor of Surgery

**BS:** The Pennsylvania State University, University Park, Pa., 1998

**MD:** Virginia Commonwealth University, Richmond, Va., 2002

**Specialty Training:** Internship and residency in general surgery; University of Maryland, Baltimore, Md.; fellowship in cardiothoracic surgery, University of Virginia, Charlottesville, Va.

**Appointment:** 2011

**Specialty Interests:** Aortic surgery, heart transplantation, lung transplantation, heart failure

**Research Interests:** Aortic pathology, heart and lung transplantation; heart failure



Kilic

**John C. Linn, MD**

Clinical Assistant Professor of Surgery, Division of General and Gastrointestinal Surgery

**BS:** University of Notre Dame, Notre Dame, In., 2001

**MD:** Medical College of Wisconsin, Milwaukee, Wi., 2005

**Specialty Training:** Residency in general surgery, McGaw Medical Center of Northwestern University, Chicago, Ill.

**Appointment:** 2010

**Specialty Interests:** Minimally invasive surgery, advanced laparoscopic surgery

**Research Interest:** Laparoscopic surgery



Linn

**Patrick I. McConnell, MD**

Assistant Professor of Surgery

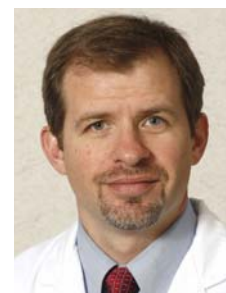
**BA:** Creighton University, Omaha, Ne., 1994

**MD:** University of Nebraska Medical Center, Omaha, NE, 1999

**Specialty Training:** General surgery residency, University of Utah Hospitals, Salt Lake City, Ut.; fellowship in cardiovascular surgery, The Ohio State University Medical Center, Columbus, Oh.; fellowship in congenital heart surgery, Nationwide Children's Hospital, Columbus, Oh., 2010

**Appointment:** 2010

**Specialty Interests:** Heart transplantation, adult cardiac surgery, coronary artery bypass surgery, mechanical circulatory support.



McConnell

**R. Lawrence Moss, MD**

Professor of Surgery, Division of Pediatric Surgery; Surgeon-in-Chief, Nationwide Children Hospital

**BA:** Stanford University, Palo Alto, Ca.

**MD:** Medical College of Ohio, Toledo, Oh.

**Specialty Training:** Virginia Mason Medical School, Seattle, Wa.; Children's Memorial Hospital, Chicago, Il.

**Appointment:** 2010

**Specialty Interests:** Separating conjoined twins, surgical repair of complex pelvic malformations, minimally invasive pediatric surgery, extracorporeal membrane oxygenation (ECMO), infant life-support systems

**Research Interests:** Necrotizing enterocolitis, evidence-based surgery, database development, analysis of non-randomized data in surgery



Moss

**Sabrena Noria, MD, PhD**

Clinical Assistant Professor of Surgery, Division of General and Gastrointestinal Surgery

**BS:** University of Toronto, Toronto, Ontario, Canada, 1994

**PhD:** University of Toronto, Toronto, Ontario, Canada, 2001

**MD:** University of Toronto, Toronto, Ontario, Canada, 2005

**Specialty Training:** Residency in general surgery, St. Michael's Hospital, Toronto, Ontario, Canada; residency in general surgery, Toronto General Hospital, Toronto, Ontario, Canada

**Appointment:** 2009

**Specialty Interests:** Thoracic surgical oncology, esophageal cancer, minimally invasive thoracic surgery

**Research Interests:** Minimally invasive surgery

**Previous Appointment:** Vascular remodeling, cellular biology



Noria

**Alicia M. Terando, MD**

Assistant Professor of Surgery, Clinical, Division of Surgical Oncology

**BS:** University of Virginia, Charlottesville, Va., 1994

**MD:** Medical College of Pennsylvania, Philadelphia, Pa., 1998

**Specialty Training:** Fellowship in research, University of Michigan, Ann Arbor, Mi., 2004; residency in general surgery, University of Michigan, Ann Arbor, Mi., 2006; fellowship in surgical oncology, John Wayne Cancer Institute, Santa Monica, Ca., 2009

**Appointment:** 2010

**Specialty Interest:** Surgical and multimodal immunotherapy for high-risk/metastatic melanoma

**Research Interests:** Tissue culture, flow cytometry, murine experimental techniques



*Terando*

**Joanne Trgovcich, PhD**

Research Assistant Professor

**BS:** Purdue University, West Lafayette, In., 1989

**PhD:** University of North Carolina, Chapel Hill, NC, 1996

**Specialty Training:** Post-doctoral research in microbiology and immunology, University of Rijeka, Croatia, 1998; post-doctoral research in pathology, molecular genetics, cellular biology, University of Chicago, Chicago, Il., 2001

**Appointment:** 2011

**Research Interests:** Molecular genetics, cellular biology, immunology



*Trgovcich*

**Bradley R. Zagol, MD**

Clinical Assistant Professor of Surgery, Division of General and Gastrointestinal Surgery

**BS:** United States Military Academy, West Point, N.Y., 1998

**MD:** Temple University of Medicine, Philadelphia, PA, 2002

**Specialty Training:** Residency in general surgery, Walter Reed Army Medical Center, Washington, D.C.

**Appointed:** 2010

**Specialty Interests:** Minimally invasive surgery and advanced endoscopy

**Research Interests:** Minimally invasive surgery, advanced endoscopy, endoscopic retrograde cholangiopancreatography



*Zagol*

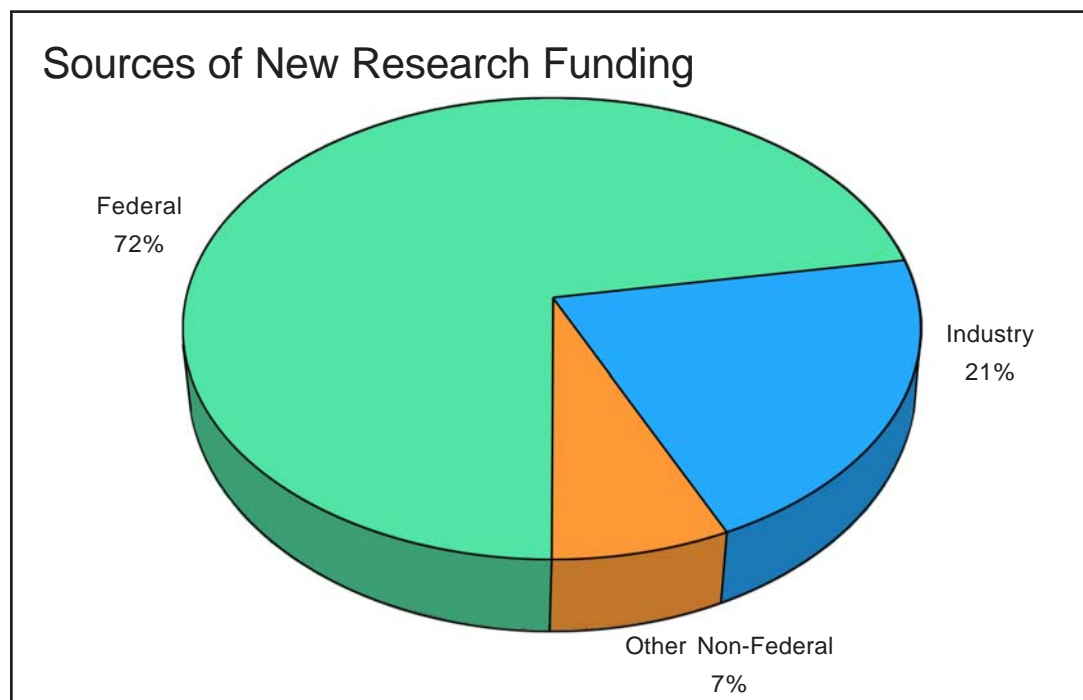


## New Research Funding

**D**uring fiscal year 2010–2011, new research funding awarded through The Ohio State University Research Foundation to principal investigators in the Department of Surgery totaled more than \$6.6 million.

New federal funding was more than \$4.8 million, or 72 percent of total funding. New non-federal funding was more than \$1.8 million, or 28 percent of the total.

Sources	Amounts
Federal	\$4,815,884
Industry	\$1,388,529
Other Non-Federal	\$459,204
<b>GRANDTOTAL</b>	<b>\$6,663,617</b>



## Graduate Programs in Surgery

**T**he surgical residency programs at The Ohio State University Medical Center share a common goal: to provide an environment conducive to learning, in which physicians prepare to function as well-qualified, independent specialists in surgery.

This year, 64 residents and fellows participated in the department's 12 residency programs, which consist of two residencies accredited by the Accreditation Council for Graduate Medical Education (ACGME), three ACGME-approved specialty certification programs, and seven approved specialty fellowships. These programs provide training in cardiothoracic surgery, general surgery, minimally invasive surgery, advanced endoscopic surgery, pediatric surgery, surgical critical care, surgical oncology, transplantation, and vascular surgery.

Surgical residents at Ohio State are dedicated to learning and teaching advanced surgical techniques and procedures, and assume a major responsibility for the clinical education of medical students. The integrated and affiliated institutions of the program provide clinical resources for graduate and undergraduate surgical education. The Ohio State University Medical Center and the Department of Surgery host a variety of forums and seminars, where clinicians and researchers share their expertise and advance the profession.

Research is a vital component of the Department of Surgery's mission and an integral element of its training programs. Research efforts are focused on key areas of interest that promise to yield significant results in the understanding of disease and in the improvement of clinical care. The Department of Surgery's Office of Surgical Research promotes interdisciplinary research activity and the integration of clinical and basic science research. The Department's stature and the reputation of its researchers and clinicians enable it to garner significant funding from private industry and from federal sources, such as the National Institutes of Health.

## Residency and Fellowship Program Graduates

**T**wenty-one residents and fellows completed their training programs this year. Three went on to community practice, eight to further training, nine to academic appointments, and one is serving at a United States Army hospital.

### **Ana Alzuhaili, MD**

Dr. Alzuhaili completed the fellowship in transplantation and began a trauma fellowship at the Hurley Medical Center, in Flint, Michigan.

### **David Arrese, MD**

Dr. Arrese completed the fellowship in surgical oncology and began practice as a surgical oncologist at Riverside Methodist Hospital in Columbus, Ohio.

### **Sergio A. Carrillo, MD**

Dr. Carrillo completed the fellowship in cardiothoracic surgery and is pursuing additional training in congenital heart surgery.

### **Ravi J. Chokshi, MD**

Dr. Chokshi completed the fellowship in surgical oncology and began an appointment as assistant professor, Division of Surgical Oncology, University of Medicine and Dentistry of New Jersey, in Newark, New Jersey.

### **Amy L. Collins, MD, MS**

Dr. Collins completed the master of medical science program and is continuing the residency in general surgery at Ohio State.

### **Andrew O. Crockett, MD**

Dr. Crockett completed the residency in general surgery and began an appointment as assistant professor in critical care, Department of Surgery, Dartmouth Medical School, in Hanover, New Hampshire.

### **H. Teresa “Tracy” Davido, MD**

Dr. Davido completed the residency in general surgery and began a fellowship in acute care surgery and an appointment as clinical assistant professor of surgery, Division of Critical Care, Trauma and Burn, at Ohio State.

### **Jeffrey L. Eakin, MD**

Dr. Eakin completed the residency in general surgery and began a fellowship in minimally invasive surgery and an appointment as assistant professor of surgery, Division of General and Gastrointestinal Surgery, at Ohio State.

### **Meghan R. Forster, MD, MS**

Dr. Forster completed the residency in general surgery and began a fellowship in surgical oncology at the H. Lee Moffitt Cancer Center, University of South Florida, in Tampa Florida.

**Ioannis S. Hatzaras, MD, MPH**

Dr. Hatzaras completed the residency in general surgery and began a fellowship in surgical oncology at Johns Hopkins Hospital, in Baltimore, Maryland.

**John G. Linn, MD**

Dr. Linn completed the fellowship in minimally invasive surgery and began practice as staff surgeon at the NorthShore University Health System and began an appointment as clinical assistant professor at the University of Chicago, Evanston, Illinois.

**Maria E. Litzendorf, MD**

Dr. Litzendorf completed the fellowship in vascular surgery and began an appointment as assistant professor, Division of Vascular Diseases and Surgery, at Ohio State.

**Sabrena F. Noria, MD**

Dr. Noria completed the fellowship in minimally invasive surgery and has accepted an appointment at Tulane University in New Orleans, Louisiana.

**Vanessa A. M. Olcese, MD, PhD**

Dr. Olcese completed the fellowship in surgical critical care and began a fellowship in neurocritical care at Ohio State.

**Thomas A. Pham, MD, MS**

Dr. Pham completed the master of medical science program and is continuing the residency in general surgery at Ohio State.

**Angelina Postoev, MD**

Dr. Postoev completed the fellowship in surgical critical care and entered private practice in Atlanta, Georgia.

**Ricardo O. Quarrie, MD, MS**

Dr. Quarrie completed the master of medical science program and is continuing the residency in general surgery at Ohio State.

**C. Jason Rousseau, DO**

Dr. Rousseau completed the fellowship in cardiothoracic surgery and entered private practice at Foothills Cardiothoracic, Spartanburg Regional Medical Center, in Spartanburg, South Carolina.

**Sarah Beth Russell, MD**

Dr. Russell completed the fellowship in surgical critical care and began an appointment as assistant professor-clinical, Critical Care Medicine, Department of Anesthesiology, at Ohio State.

**David E. Skarda, MD**

Dr. Skarda completed the fellowship in pediatric surgery and began an appointment as assistant professor of surgery and adjunct professor of pediatrics at the Primary Children's Medical Center and the University of Utah School of Medicine in Salt Lake City, Utah.

**Bradley R. Zagol, MD**

Dr. Zagol completed the fellowship in advanced therapeutic endoscopy and gastrointestinal surgery and began serving as staff surgeon, Womack Army Medical Center, Fort Bragg, North Carolina.

## Annual Surgery Awards Banquet

Outstanding faculty and housestaff were honored along with the 2010–2011 graduates of the Department of Surgery’s training programs on June 11 at the Department’s annual Graduation & Awards Banquet.

**Dr. Jeffrey L. Eakin**, chief resident in general surgery, was named Resident of the Year by the Surgery faculty.

**Dr. Justin T. Huntington** was named Intern of the Year by the Surgery faculty.

**Carey A. McCord, RN**, was named Surgical Nurse of the Year by the chief residents in general surgery.

### Teaching Awards

**Dr. Jeffrey L. Eakin**, chief resident in general surgery, was chosen by the medical students to receive the Resident Teaching Award.

**Dr. David E. Lindsey**, assistant professor of clinical surgery in the Division of Critical Care, Trauma and Burn, was selected by the medical students to receive the Michael J. Walker, M.D., Faculty Teaching Award.

**Dr. David E. Lindsey** assistant professor of clinical surgery in the Division of Critical Care, Trauma and Burn, was chosen by Department residents and fellows to receive a Faculty Teaching Award.

**Dr. John G. Linn**, fellow in minimally invasive surgery, was selected by the general surgery residents to receive a Fellow Teaching Award.

**Dr. W. Daniel Traetow**, assistant professor - clinical, Department of Anesthesiology, was selected by the chief residents in general surgery to receive the John L. Robinson Award, for outstanding teaching by faculty or staff from another department.

### Research Awards

Six trainees received awards for outstanding research presentations made at the Department of Surgery’s 16th Annual Research Conference held June 10 at The Ohio State University Medical Center.

**Dr. Jon Henry**, a general surgery resident, received the first-place award for the best research presentation, titled “miR-199a-3p Targets CD 44 and Reduces Proliferation of CD44 Positive Hepatocellular Carcinoma Cell Lines.”

**Dr. Thomas Pham**, a general surgery resident, tied for the second-place award for his research presentation, titled “Cytotoxic CD8+ T Cells Utilize FasL and Perforin to Downregulate Post-Transplant Allobantibody Production.”



**Dr. Amy Collins**, a general surgery resident, tied for the second-place award for her research presentation, titled “Pancreatic Stellate Cells Induce Overexpression of MicroRNA-21 and MicroRNA-210 in Pancreatic Cancer Cells in Hypoxia.”

**Dr. Iyore James**, a general surgery resident, tied for the third-place award for her research presentation, titled “Heparin-Binding EGF-Like Growth Factor Preserves Gut Barrier Function by Blocking Neutrophil-Endothelial Cell Adhesion After Hemorrhagic Shock and Resuscitation in Mice.”

**Dr. Ricardo Quarrie**, a general surgery resident, tied for the third-place award for his research presentation, titled “Mitochondrial Uncoupling by Increased Proton Leak is Not a Mechanism of Decreasing Reactive Oxygen Species Production After Ischemia-Reperfusion.”

**Amitava Das**, a graduate student, received the award for the best poster presentation. His poster was titled “Engulfment of Apoptotic Cells Induces miR-21 Expression and Switches Human Macrophages from a Pro-Inflammatory to Anti-Inflammatory Phenotype.”

#### **Medical Student Awards**

Department of Surgery faculty honored five senior medical students for exceptional performance and dedication to surgery.

**Matthew C. Henn** received the Barton Williams Graduation Award, a merit scholarship for a graduating fourth-year student in the College of Medicine who intends to complete a surgical residency.

**Kara M. Keplinger** received the Zollinger Award in Surgery.

**Nelson A. Royall** received the Jonasson Award in Surgery.

**Robert A. Simon** received the Carey Award in Surgery.

**Valerie A. Wood** received the Ferguson Award in Surgery.

## Recognitions

**Dr. Paul Beery, II**, assistant professor of surgery, Division of Critical Care, Trauma and Burn, passed the neurocritical care certification exam.

**Dr. Ginny L. Bumgardner**, professor of surgery, Division of Transplantation, was appointed chair, American Society of Transplant Surgeons Awards Committee.

**Dr. Yuk Cheung Chan**, post-doctoral researcher, Department of Surgery, was selected as 1st place during the Post-Doctoral Researcher poster competition, and awarded a certificate in recognition of outstanding achievement for his presentation “Hypoxia-Sensitive Mir-200b Regulates Angiogenic Response of Endothelial Cells by Targeting Ets-1”, at the 10th Annual Dorothy M. Davis Heart & Lung Research Institute Research Day, Columbus, OH, October 12, 2010.

**Dr. Charles Cook**, associate professor of surgery, Division of Critical Care, Trauma and Burn, and his manuscript, *Tree stands, not guns, are the Midwestern hunter's most dangerous weapon* were featured in the Nation section of the November 4, 2010 issue of *USA Today*. Dr. Cook was subsequently quoted and the *USA Today* article was recounted across the nation by more than 25 sports magazines, on-line journals, and newspapers including the *Los Angeles Times*. Dr. Cook was also interviewed regarding the conclusions of his study by several radio stations.

**Dr. Charles H. Cook** was awarded the Division of Wildlife Award by the Ohio Department of Natural Resources in February 2011 for his work in raising hunter safety awareness.

**Dr. Daniel S. Eiferman**, assistant professor of surgery, Division of Critical Care, Trauma and Burn, has passed the critical care board examinations.

**Dr. Daniel S. Eiferman**, assistant professor of surgery, Division of Critical Care, Trauma, and Burn, has successfully passed the surgical critical care board examinations, October 2010.

**Dr. Daniel S. Eiferman**, assistant professor of surgery, Division of Critical Care, Trauma and Burn, was awarded the OSU Department of Emergency Medicine Outstanding Contribution Award on June 17, 2011 at The Ohio State University, Columbus OH.

**Dr. David Evan** was awarded First Place – Clinical Science at the Annual Resident Research Forum, Ohio Chapter, American College of Surgeons Meeting, Columbus, Ohio, May 7, 2010.

**Dr. William B. Farrar**, The Dr. Arthur G. and Mildred C. James Professor in Surgical Oncology and chief, Division of Surgical Oncology, has been selected as director of the new JamesCare Comprehensive Breast Center.

International post doctoral fellow, **Dr. Kasturi Ganesh**, and her research work were recently recognized by the OSU Office of Research at the 5th Annual Scholar Research Exposition, held in November. Drs. Savita Khanna, Sabyasachi Biswas and Cyrus Chan attended the event as her mentor & co-workers. Her poster was displayed outside of University President's office for one month. The exposition showcases the world-class research conducted by the more than 1,600 international visiting scholars at The Ohio State University.

**Dr. Alan Harzman**, assistant professor of surgery-clinical, Division of General and Gastrointestinal Surgery, was initiated as a Fellow of the American College of Surgeons at the American College of Surgeons 96th Annual Clinical Congress, Washington, DC, October 3-7, 2010.

The Ohio State University Hospital attending medical staff members recently elected **Dr. Alan E. Harzman**, assistant professor of clinical surgery, Division of General and Gastrointestinal Surgery as Member At Large. Dr. Harzman will serve as a voting member of the Medical Staff Administrative Committee for a two-year term, beginning July 1, 2011.

**Dr. Jon Henry** was awarded the CCTS Best Abstract Award in Clinical and Translational Science at the Pharmacy Research Day held on May 18, 2011. The title of his abstract was miR-199a-3p Targets CD44 and Reduces Proliferation of CD44 Positive Hepatocellular Carcinoma Cell Lines.

**Abdulfatah Issak**, second year medical student, was awarded a Medical Student Research Initiation Grant by the Research Foundation of the American Society of Colon and Rectal Surgeons for his summer project entitled Working Against the Camera. The study evaluates trainee and attending performance of laparoscopic tasks when the camera is looking sideways or backwards with respect to the surgeon. This trial builds on principal investigator **Dr. Alan Harzman's** previous work on learning laparoscopic tasks.

**Carla Justiniano**, a first year medical student was awarded a COM Medical Student Research Scholarship (MDSRS) funded by the Bennett Scholarship. She will be involved in a research project entitled: "Comorbidity-Polypharmacy Score: A Triage Tool for Determining Post-Emergency Department Destination Among Older Trauma Patients." Dr. Stanislaw Stawicki will serve as project mentor.

**Dr. Pratibha Kamble**, post-doctoral researcher, Department of Surgery, was awarded for her presentation "Aspirin Regulates Sirtuin Gene Expression; Potential Role in ATP Conservation and Cellular Energy Status" at the Post-Doctoral Researcher Poster Competition, at the 10th Annual Dorothy M. Davis Heart & Lung Research Institute Research Day, Columbus, OH, October 12, 2010.

**Dennis Kiser** and **Dr. Bhagwan Satiani**, Member First Time Presenter Award. Society for Vascular Ultrasound Annual Conference in Boston, MA, June 11, 2010.

**Dr. David Lindsey**, assistant professor of surgery, Division of Critical Care, Trauma and Burn, was accepted into the 2011-12 Ethicon Endo-Surgery Surgical Educational Research Fellowship (SERF) program.

**Dr. David Lindsey**, assistant professor of surgery, Division of Critical Care, Trauma and Burn, was nominated for the Leonard Tow Humanism Award.

**Dr. David E. Lindsey**, assistant professor of clinical surgery, Division of Critical Care, Trauma and Burn, was awarded the Excellence in Teaching Award on June 2, 2011 at the OSU College of Medicine's award ceremony. The event was held at the Ohio Union Ballroom. Dr. Lindsey was also awarded the Medical Student Outstanding Teaching Award at the annual Medical Students Award ceremony, held on June 11, 2011, and he was awarded the Resident Outstanding Teaching Award at the annual Department of Surgery Awards Banquet, held on June 11, 2011.

**Dr. W. Scott Melvin**, professor of surgery and chief, Division of General and Gastrointestinal Surgery, has been named editor-in-chief of *Surgical Laparoscopy & Percutaneous Techniques*.

The Ohio State University Medical Center has partnered with LifeWings' Patient Safety Improvement Program, to utilize the best practices of high reliability organizations. Crew resource management (CRM) is an integrated series of on-site training sessions for leadership, physicians and staff, along with customized, site-built safety tools (e.g., checklists, communication scripts, standard protocols) to hardwire a permanent change in the workplace culture. The following Department of Surgery faculty have been recognized as Crew Resource Management Champions for their contributions to clinical quality, safety and service; **Dr. Steven Steinberg** and **Dr. Daniel Eiferman**, Critical Care, Trauma and Burn, **Dr. Jeff Hazey**, General and Gastrointestinal Surgery, **Dr. Michael Firstenberg** and **Dr. Chittoor Sai-Sudhakar**, Cardiac Surgery, and **Dr. Michael Go**, Vascular Diseases and Surgery.

**Dr. Brian Porshinsky**, assistant professor of surgery, completed a proof of concept study on his Novel Carpal Tunnel Release Device; November, 2009.

**Dr. Brian Porshinsky**, assistant professor of surgery, has filed a provisional patent regarding his Novel Carpal Tunnel Release Device; May, 2010.

**Dr. Bhagwan Satiani**, professor of surgery, Division of Vascular Surgery was elected President-Elect of the South Asian American Vascular Society (SAAVS), Boston, MA, June 9th, 2010.

**Dr. Bhagwan Satiani**, professor of surgery, Division of Vascular Diseases and Surgery, was elected president of the South Asian American Vascular Society for 2011-2012 at its annual meeting on June 16 in Chicago. The society was formed to maintain the identity of members from South Asia to promote the dissemination of knowledge and provide a forum for scientific, educational, cultural, charitable and social interaction among the members.

**Dr. Chandan K. Sen**, professor of surgery and vice chair of research, the Department of Surgery, and associate dean for Translational and Applied Research in The Ohio State University College of Medicine, has been selected as chair of the Surgery, Anesthesiology and Trauma Study Section, Center for Scientific Review of the National Institutes of Health (NIH).

**Dr. Steven M. Steinberg**, professor of surgery; chief, Division of Critical Care, Trauma, and Burn; and vice chairman for Clinical Affairs, Department of Surgery was selected as an American College of Surgeons (ACS)/American Surgical Association Health Policy Scholar for 2010.

**Dr. Stanislaw P. Stawicki**, assistant professor of surgery, Division of Critical Care, Trauma and Burn, was appointed as a Chief Editor to the *International Journal of Critical Illness & Injury Science*, the official publication of the International Network of Critical Illness and Injury Trial Experts. The journal promotes translational research in critical care medicine and science.

**Dr. Stanislaw Stawicki** was appointed to the Formulary Committee, Subcommittee of Pharmacy, Therapeutics & Drug Utilization Committee by the Chief Medical Officer for The Ohio State University Medical Center, Hagop Mekhjian, M.D.

**Dr. Stanislaw Stawicki** accepted an invitation to become a member of the Editorial Board of the *World Journal of Critical Care Medicine*.

**Dr. Stanislaw P. Stawicki**, assistant professor of surgery, Division of Critical Care, Trauma and Burn, was appointed as a member of The Ohio State University Human Subjects (biomedical) Institutional Review Board.

**Dr. Alok Sutradhar**, post-doctoral researcher, Division of Plastic Surgery was recognized in the July 15, 2010 issue of *The Economist*, in the article “The new face of surgery – A high-tech engineering technique offers promise to reconstructive surgery.” The article was a review of Dr. Sutradhar’s study, “Topological optimization for designing patient-specific large craniofacial segmental bone replacements.” The study explores the use of 3D computer modeling and aerospace technology to design patient-specific structures for facial reconstruction.

**Dr. Anne Taylor**, associate professor of surgery, Division of Plastic Surgery was nominated to American Society of Plastic Surgeons (ASPS) Board of Directors, term beginning October 2010.

**Dr Patrick S. Vaccaro**, chief, Division of Vascular Diseases and Surgery, has been named as the Luther M. Keith Professor of Surgery.

**Dr. Melissa L. Whitmill**, assistant professor of surgery, Division of Critical Care, Trauma and Burn, passed the neurocritical care certification exam.

## In the news

The *Best Doctors in America, 2011-2012* database, surgery category for central Ohio, selected OSU Department of Surgery faculty exclusively. Listed as the best are **Dr. Kenneth Andreoni, Dr. Ginny Bumgardner, Dr. Elmahdi Elkhammas, Dr. E. Christopher Ellison, Dr. Mitchell Henry, Dr. W. Scott Melvin, Dr. Peter Muscarella, Dr. Bradley Needleman, Dr. Ronald Pelletier, Dr. Amer Rajab, and Dr. Steven Steinberg**. Also listed by surgical specialty are **Dr. Mark Arnold**, colon and rectal surgery; **Dr. Mark Galantowicz** and **Dr. Alistair Philips**, pediatric cardiac surgery; **Dr. Gail Besner, Dr. Denis King**, and **Dr. Steven Teich**, pediatric surgery; **Dr. William Carson, Dr. William Farrar**, and **Dr. William Kraybill**, surgical oncology; and **Dr. Patrick Ross**, thoracic surgery. The *Best Doctors in America* database is compiled by Best Doctors, Inc., and includes over 40,000 doctors in more than 40 medical specialties. Only the top one percent of the nation's physicians was selected as America's best.

**Kenneth Andreoni, MD**, associate professor of surgery, Division of Transplant Surgery appeared as a guest commentator on the WBUR/NPR radio program *On Point with Tom Ashbrook*, discussing the topic of organ allocation for transplantation. The program aired March 1, 2011. Dr. Andreoni, who chairs the United Network for Organ Sharing (UNOS) kidney committee was also invited to comment on the topic of organ allocation in an article in the March 5, 2011 edition of the *Pittsburgh Post-Gazette*.

**Dr. William Farrar**, professor of surgery, Division of Surgical Oncology and director of the JamesCare Comprehensive Breast Center at The Ohio State University Comprehensive Cancer Center – Arthur G. James Cancer Hospital and Richard J. Solove Research Institute, is quoted in the June 2011 issue of *Columbus C.E.O. Magazine* article "Life after cancer." Dr. Farrar was quoted as saying "It (the JamesCare Center) gives us the ability to treat breast cancer and promote breast health in one building. We have everything - prevention, medical oncology, plastic surgery, breast implants, physical therapy, psychologists, survivorship groups, genetic counseling and MRIs."

**Dr. Gayle M. Gordillo**, associate professor of surgery, Division of Plastic Surgery, has been accepted into the Executive Leadership in Academic Medicine (ELAM) fellowship program of the Institute for Women's Health and Leadership at Drexel University College of Medicine, Philadelphia, Pennsylvania. The ELAM program is an intensive one-year program of leadership training with extensive coaching, networking and mentoring opportunities aimed at expanding the national pool of qualified women candidates for leadership in academic medicine, dentistry and public health.

**Dr. Mitchell Henry**, professor of surgery and chief of the Division of Transplant Surgery, was interviewed for a story on two central Ohio brothers involved in a living-related organ donation. The story was broadcast by WCMH-TV News on the evening of Tuesday, April 19. The older brother donated one of his healthy kidneys to his brother who suffered from acute renal failure. The surgery took place the that Tuesday at The Ohio State University Medical Center. According to Dr. Henry living organ donation is increasing, and has a high success rate. Currently more than 2,500 patients are waiting for a kidney donation in Ohio.



During the Friday, March 4 morning rush hour, a four-car accident occurred on I-71 North near Frank Road in Columbus, Ohio. When **Miranda Jackson**, a certified trauma nurse practitioner from Ohio State's Division of Trauma and Critical Care, encountered the accident on her way to work, she pulled over to help. Miranda told the deputy sheriff at the scene she was a trauma nurse from OSU and began improvising a temporary pelvic binder to stabilize an injured driver. That driver was rushed to Ohio State for treatment of his injuries – he survived. “I did what I’ve been trained to do,” Miranda said. Her story appeared on that Friday evening’s news broadcast of WBNS-10TV, the local CBS affiliate.

**Dr. W. Scott Melvin**, professor of surgery; chief, Division of General and Gastrointestinal Surgery; director, Center for Minimally Invasive Surgery, and Dr. Yun Xia, associate professor, Anesthesiology, were awarded a Gateway Research Grant in the amount of \$10,000 for the study “Gateway to Minimally Invasive Surgical Education”. The study is in partnership with Guangxi Medical University, Nanning, China, and the Chinese Society of Laparo-Endoscopic Surgery (CSLES). The grant is provided by the OSU Office of International Affairs.

A surgical team, led by **Dr. Vimal Narula**, assistant professor of clinical surgery, Division of General and Gastrointestinal Surgery, became one of the first in the nation to remove a patient’s gall bladder transvaginally. The advanced surgery technique decreases pain, reduces the risk of infection or a subsequent hernia, and leaves no scar. The first transvaginal gallbladder removal at Ohio State shows the potential of natural orifice transluminal endoscopic surgery (NOTES). “OSU Medical Center is one of the few programs in the country with a leading role in a novel study to examine the use of natural orifice surgery as another emerging technology within the field of minimally invasive therapy,” said Narula. The trial is sponsored by the Natural Orifice Surgery Consortium for Assessment and Research (NOSCAR).

**Dr. Amer Rajab**, associate professor of surgery, Division of Transplant Surgery, performed a unique medical procedure that is expected to eliminate the patient’s need to take insulin for controlling type 1 diabetes. The pancreatic islet cell transplant is a first for The Ohio State University Medical Center, one of about a dozen medical centers in the country with a team in place to perform the transplants that improve the quality of life for people with diabetes. “Ohio State has been preparing for the highly specialized procedure for more than seven years,” says Dr. Amer Rajab. “Being able to offer such advanced treatment to our patients is a dream come true after so many years of hard work to lay the foundation for this program.”

**Dr. Bhagwan Satiani**, professor of surgery, Division of Vascular Diseases and Surgery, appeared on the Global Columbus TV show, a live presentation broadcast Wednesday, July 6, from 7:00pm to 8:00pm. Dr. Satiani discussed domestic violence, representing [www.asharayofhope.org](http://www.asharayofhope.org).

**Dr. Chandan Sen**, professor and vice chair for research in Ohio State’s Department of Surgery, along with other clinical and translational researchers from the Comprehensive Wound Care Center and the Dorothy M. Davis Heart and Lung Research Institute at Ohio State, are recipients of a United States Department of Defense, two-year, \$1.4 million grant to be used to study the benefits of using brown algae extracted from seaweed and giant kelp, specifically for the treatment of burn wounds.

**Richard Sobieray**, who is currently serving as chief financial officer of OSU Physicians (OSUP) and associate executive director of the new OSU Faculty Group Practice, has accepted the additional responsibilities of chief financial officer for the Specialty Care Network and Ambulatory Services. With the addition of these roles, Rich will have financial oversight for all of Ohio State's physician organizations as well as Ambulatory Services, which will greatly aid OSUMC's plans for further growth and coordination among these entities in the future.

**Dr. Steven Steinberg**, professor of surgery and chief, Division of Critical Care, Trauma and Burn; and vice chairman for Clinical Affairs, Department of Surgery was interviewed on July 23, 2010 by WSYX-TV ABC 6 News about the recent spike in violent activity throughout central Ohio which has landed several victims in the emergency department. During the interview Dr. Steinberg discussed the physical and emotional effects of gunshot injuries.

**Dr. Steven Steinberg** and his wife, Beth Steinberg, were honored with the 2011 STAR Award at the February 24 reception held at the historic Lincoln Theatre, Columbus, Ohio. The reception, hosted by OSU president Dr. E. Gordon Gee and OSUMC CEO Dr. Steven Gabbe, is part of the Wex-STAR Benefit fundraising event to support The Ohio State University Stress, Trauma, and Resilience (STAR) Program. The event is co-sponsored by the OSU Wexner Center for the Arts. The STAR program provides education, treatment, and research on behalf of trauma survivors and their families.

## Distinguished Visiting Professors

### **Dr. Milton Armstrong**

Dr. Milton Armstrong, Professor of Surgery and Chief, Division of Plastic Surgery, Medical University of South Carolina, Keynote Speaker, 2010 Ruberg Symposium, September 9 & 10, 2010

### **Dr. Michael L. Bentz**

Dr. Michael L. Bentz, Professor and Chairman, Division of Plastic and Reconstructive Surgery, University of Wisconsin School of Medicine, presented “Total Nasal Reconstruction”, “Scalp and Skull Reconstruction” and “Case Vignettes”, March 10 & 11, 2011

### **Dr. Geoffrey N. Box**

Dr. Geoffrey N. Box, Assistant Professor of Urology, The Ohio State University College of Medicine, presented “Prostate Cancer Update 2011”, March 17, 2011.

### **Dr. Randall S. Burd**

Dr. Randall S. Burd, Associate Professor of Surgery and Pediatrics, George Washington University School of Medicine and Health Sciences, Visiting Professor in Critical Care, “Improving the Care of the Injured Child in a Prehospital and Emergency Department Setting”, November 17-18, 2010.

### **Dr. Larry Carey**

Dr. Larry Carey, Emeritus Professor of Surgery and former chair of the Department of Surgery; Associate Chief of Staff for Education at University of South Florida. “How it Started and How it Went”, William L. Smead, MD Symposium, May 21, 2011.

### **Dr. Ellen W. Clayton**

Dr. Ellen W. Clayton, Rosalind E. Franklin Professor of Genetics and Health Policy, director of the Center for Biomedical Ethics and Society, professor of law, and professor of pediatrics at Vanderbilt University, presented “Dealing with Genomics in the Clinic”, September 30, 2010.

### **Dr. Daniel G. Coit**

Dr. Daniel G. Coit, Professor of Surgery, Weill-Cornell Medical School, Attending Surgeon at Memorial Sloan-Kettering Cancer Center and Co-leader of the Melanoma Disease Management Team at the Memorial Sloan-Kettering Cancer Center, presented “Surgical Management of Malignant Melanoma”, Michael J. Walker Memorial Lecture Visiting Professor, September 2, 2010.

### **Dr. Samuel E. Dagogo-Jack**

Dr. Samuel E. Dagogo-Jack, A.C. Mullins Endowed Chair in Translational Research, Professor of Medicine, Director, Division of Endocrinology, Diabetes & Metabolism and Director, General Clinical Research Center, University of Tennessee Health Science Center, presented “Diabetes and Cardiovascular Disease: Implications of Recent Outcome Studies”, April 7, 2011.

**Dr. Alberto R. Ferreres**

Dr. Alberto R. Ferreres, Professor of Surgery and Chair of the Department of Surgery, Dr. Carlos A. Bocalandro Hospital, University of Buenos Aires, Argentina, presented “Error in the Surgical Domain”, September 30, 2010.

**Dr. William Finkelmeier**

Dr. William Finkelmeier, National Director, Vein Solutions, presented “Smeadism and Their Impact on my Career”, William L. Smead, MD Symposium, May 21, 2011.

**Dr. George Geroulakos**

Dr. George Geroulakos, Vascular Surgeon, Charing Cross Hospital; President of the Vascular Section of The Royal Society of Medicine in London, presented “Randomized Controlled Trial of Ultrasound Guided from Sclerotherapy Combined with Sapheno-Femoral Ligation Compared to Surgical Treatment of Varicose Veins; Five Year Results”, William L. Smead, MD Symposium, May 21, 2011.

**Dr. John Hallett**

Dr. John Hallett, Clinical Professor of Surgery; Medical Director, St. Francis Heart and Vascular Center, Medical University of South Carolina, presented “Creating Heart and Vascular Centers that Work: Negotiating Troubled Waters”, William L. Smead, MD Symposium, May 21, 2011.

**Dr. Irving Kron**

Dr. Irving Kron, President of the American Association for Thoracic Surgery, Chairman of the Department of Surgery and the S. Hurt Watts Professor of Surgery, University of Virginia, Charlottesville, VA, “The Present and Future of Cardiothoracic Surgery”, Klassen Lecture, June 16, 2011.

**Dr. Steven Leers**

Dr. Steven Leers, Assistant Professor of Surgery, University of Pittsburgh Medical Center, presented “Duplex Ultrasound after EVAR and Venous Reflux and CVI Testing”, 3rd Non-Invasive Vascular Symposium, October 16, 2010.

**Dr. Malcolm Lesavoy**

Dr. Malcolm Lesavoy, plastic and reconstructive surgeon, Plastic Surgery Education Foundation Visiting Professor, presented “MOHS Facial Reconstruction” and “Physician Health in Plastic Surgery”, February 10 & 11, 2011

**Dr. Allan William Lohaus**

Dr. Allan William Lohaus, obstetrician and gynecologist and served as Associate Professor of Gynecology and Obstetrics, Johns Hopkins Hospital, presented “Mayday!: A Physician as Patient”, February 10, 2011.

**Dr. James Luketich**

Dr. James Luketich, Chair of the Department of Cardiothoracic Surgery, Professor of Surgery, University of Pittsburgh, presented “Evolution of Minimally Invasive Esophagectomy”, March 4, 2011.

**Dr. Robert G. Martindale**

Dr. Robert G. Martindale, Professor of Surgery, Chief, Division of General Surgery and Medical Director for Hospital Nutrition Services, Oregon Health & Science University, presented “Using Specific Nutrients to Improve Surgical Outcomes: Facts or Fiction?”, March 3, 2011.

**Dr. Fabrizio Michelassi**

Dr. Fabrizio Michelassi, Lewis Atterbury Stimson Professor of Surgery and Chairman of the Department of Surgery at Weill Cornell Medical College and Surgeon-in-Chief at New York-Presbyterian Hospital, presented the 2011 Robert M. Zollinger Lecture “Management of Complex Small Bowel Crohn’s Disease”, June 9, 2011.

**Dr. R. Lawrence Moss**

Dr. R. Lawrence Moss, H. William Clatworthy Visiting Professor in the Division of Pediatric Surgery, Robert Pritzker Professor, Surgery and Pediatrics, Yale University School of Medicine, Pediatric Grand Rounds, “Connecting your Head to Your NEC: Improving Outcomes for Babies with Bowel Perforation”. September 21-23, 2010.

**Dr. Janice F. Rafferty**

Dr. Janice F. Rafferty, Professor of Clinical Surgery and Chief of the Division of Colon and Rectal Surgery, University of Cincinnati College of Medicine, presented “Diverticulitis: New Management of An Old Disease”, March 10, 2011.

**Dr. Layton F. Rikkers**

Dr. Layton F. Rikkers, Emeritus Professor of Surgery, University of Wisconsin School of Medicine and Public Health, presented “Surgical Leadership: Lessons Learned”, April 28, 2011.

**Dr. Ann Marie Schmidt**

Dr. Ann Marie Schmidt, Director of the Diabetes Research Program, first Iven Young Professor of Endocrinology, New York University Langone Medical Center, New York, NY, “RAGE, Signal Transduction and the Complications of Diabetes”, Klassen Lecture, June 16, 2011.

**Dr. Kurt B. Stevenson**

Dr. Kurt B. Stevenson, Associate Professor of Internal Medicine and Epidemiology in the Division of Infectious Diseases, Department of Internal Medicine, and the Division of Epidemiology, College of Public Health, The Ohio State University College of Medicine. He is also the Associate Medical Director of Clinical Epidemiology for the OSU Health System where he serves as the Director of the Antimicrobial Stewardship Program. Dr. Stevenson presented “Bad Bugs, No Drugs: Optimizing Antimicrobial Agents at OSUMC”, September 16, 2010.

## Integrated and Affiliated Hospitals

### **The Ohio State University Medical Center**

Consistently recognized as one of America's best hospitals, The Ohio State University Medical Center is dedicated to patient care, research, and medical education. An institution with advanced diagnostic and therapeutic capabilities and more than 900 licensed beds, Ohio State's Medical Center is a major tertiary referral center and a Level I trauma center with a helicopter transport service. A network of primary care centers refers patients to the Medical Center's comprehensive patient management system.



*The Ohio State University  
Medical Center*

### **The Arthur G. James Cancer Hospital and Richard J. Solove Research Institute**

Dedicated to care of the cancer patient and to cancer research, the Arthur G. James Cancer Hospital and Richard J. Solove Research Institute is the only freestanding cancer hospital in Ohio and is one of 16 charter members of the National Comprehensive Cancer Network. An institution with 160 licensed beds, the James is adjacent to Ohio State's Medical Center.



*The James Cancer Hospital*

### **The Richard M. Ross Heart Hospital**

Home to Ohio State's nationally-ranked heart program and dedicated exclusively to the care of patients with cardiovascular disease, the Richard M. Ross Heart Hospital is a 150-bed, state-of-the-art institution offering advanced imaging and surgical technologies and patient care facilities. The hospital adjoins Ohio State's Medical Center.



*The Ross Heart Hospital*

### **University Hospital East**

A full-service hospital with an emphasis on family medicine, orthopedic care, and emergency medicine, University Hospital East is located on the near east side of Columbus, six miles from Ohio State.



*University Hospital East*



**Nationwide Children's Hospital**

The fifth-largest freestanding children's hospital in the United States, Nationwide Children's Hospital provides a broad spectrum of services, from advanced neonatal intensive care and surgery to primary and secondary medical care. Children's Hospital is fully integrated with the training programs of the College of Medicine and The Ohio State University Medical Center. A Level I trauma center, Children's is located just east of downtown Columbus, five miles from Ohio State.

*Children's Hospital***Grant Medical Center**

Located in the heart of downtown Columbus, five miles from Ohio State, Grant Medical Center is a busy, respected hospital and a Level I trauma center.

*Grant Medical Center***Mount Carmel West**

An active and respected health-care provider, Mount Carmel West is located just west of downtown Columbus, five miles from Ohio State.

*Mount Carmel West***Riverside Methodist Hospital**

Known for high-quality care, Riverside Methodist Hospital is located on the north side of Columbus, four miles from Ohio State.

*Riverside Hospital*

## Chairmen of the Department of Surgery

1914–1916	Dr. William J. Means
1916–1922	Dr. Verne A. Dodd (Head of Clinical Surgery)
1922–1926	Dr. Charles S. Hamilton
1927–1946	Dr. Verne A. Dodd (Head of Clinical Surgery)
1936–1952	Dr. George M. Curtis (Chairman of Surgical Research)
1946–1974	Dr. Robert M. Zollinger
1975–1986	Dr. Larry C. Carey
1987–1992	Dr. Olga Jonasson
1993–1998	Dr. Ronald M. Ferguson
1999 – present	Dr. E. Christopher Ellison

## A Legacy of Leadership

A bronze bust of Dr. Edwin H. Ellison is on exhibit in the Department of Surgery's display case on the sixth floor of 395 West 12th Avenue, in recognition of the former faculty member's contributions to The Ohio State University Medical Center.

Dr. Ellison joined the faculty of the department in 1946, after completing his residency in general surgery at Ohio State, under the mentorship of Dr. Robert M. Zollinger, then chairman of the department.

Dr. Ellison and Dr. Zollinger went on to perform the landmark studies that resulted in their identification of the disorder now known as Zollinger-Ellison syndrome, a condition characterized by intractable peptic ulcers, gastric hypersecretion and hyperacidity, and the occurrence of gastrinomas of the pancreatic cells of the islets of Langerhans. Their findings were published in *Annals of Surgery* in 1955.

Dr. Ellison served on the surgical faculty at Ohio State for 12 years. During this time, his achievements as a gifted clinical physician and technical surgeon, inspiring educator, and accomplished surgical investigator were important influences in the department's rapid development and success after World War II.

In 1958, Dr. Ellison accepted an appointment as professor and chairman of surgery at Marquette University School of Medicine, now the Medical College of Wisconsin, in Milwaukee.

At Marquette, Dr. Ellison trained Dr. Larry C. Carey, who later, from 1975 to 1985, would serve as professor and chairman of surgery at Ohio State.

While at Ohio State, Dr. Carey trained Ellison's son, Dr. E. Christopher Ellison, now the Robert M. Zollinger professor and chairman of surgery, associate vice president for health sciences, and vice dean of clinical affairs at The Ohio State University Medical Center.

"Dr. [Edwin] Ellison was unique," Dr. Carey said during a 1994 interview. "He had a remarkable ability to get more out of people than was in them. He convinced all of us that we were a lot better than we were, and having done so, he helped us achieve more than we might have."

Under Dr. Ellison's leadership, the surgical faculty at Marquette made important contributions to the field of gastrointestinal surgery, and the department and its academic reputation grew and flourished.



*Bust of Dr. Edwin H. Ellison*

Dr. Ellison died in 1970. He is remembered as a successful leader in academic surgery who made significant contributions to the profession of surgery, both at The Ohio State University Medical Center and at the Medical College of Wisconsin.

The bust of Dr. Ellison was sculpted by artist Anna D. Christoforidis, who also created the bust of Dr. Zollinger exhibited in the department's display case.



*Instruments presented to Dr. Robert M. Zollinger*

#### **Also on Exhibit**

Also on exhibit is a set of surgical instruments that belonged to Dr. Robert M. Zollinger, chairman of the Department of Surgery from 1946 to 1974.

The instruments, a pair of Metzenbaum surgical scissors, were presented to Dr. Zollinger in 1970 by the then chief residents in general surgery: Dr. Michael F. Kaplan, Dr. Avram R. Kraft, Dr. Paul C. Redmond, Dr. Gary M. Richardson, and Dr. Thomas T. Vogel.

The instruments were donated to the Department of Surgery by Dr. Zollinger's son, Dr. Robert M. Zollinger, emeritus professor of surgery at Case Western Reserve University, in Cleveland, Ohio.

## Division of Cardiac Surgery



# Cardiac Surgery



**Robert S. D. Higgins, MD, MSHA**  
Chief, Division of Cardiac Surgery

The 2010-2011 academic year represents an important milestone at The Ohio State University Medical Center with the recruitment of new leadership in the Division of Cardiac Surgery. With the appointment of Dr. Robert Higgins as the Professor and Chief of the Division of Cardiac Surgery, a new Division of Thoracic Surgery was created under the direction of Patrick Ross, Jr., MD, PhD. Dr. Higgins joined the faculty from his role as the Department Chair of Cardiothoracic Surgery at Rush University Medical Center in Chicago. Under the direction of these two leaders, the faculty and staff of the Divisions of Cardiac and Thoracic Surgery have continued grow and distinguish these programs as standouts in the field of academic surgery. The innovative programs continue to focus on clinical excellence in adult cardiac and thoracic surgery, mechanical circulatory support and transplantation, approaches to valvular disease and minimally invasive approaches to cardiovascular disease and arrhythmia management.

This faculty continues to emphasize clinical excellence, outstanding patient care, education and research. These efforts are particularly successful in The Ross Heart Hospital, a uniquely positioned innovative health delivery system with capabilities for diagnostic, interventional and surgical therapies for patients with cardiovascular disease.

A number of impressive accomplishments were realized by the divisional faculty this year. Dr. Michael Firstenberg was elected as the College of Medicine's University Senate Representative. Dr. Juan Crestanello led a team of physicians/cardiologists to perform the first Core Valve percutaneous aortic valve implantation at OSUMC. Four faculty members were elected to membership of the American Association for Thoracic Surgery – Drs. Ross, Galantowicz, Crestanello and Firstenberg.

**Patient Care**

The Cardiac Surgery Division continues to excel as one of the premier cardiovascular programs in Ohio. As a leading referral program for innovative therapies, the Cardiac Surgery Division under the direction of Dr. Higgins includes distinguished faculty members: Dr. Juan Crestanello, Dr. Sai-Sudhakar, Dr. Michael Firstenberg, Dr. John Sirak, and Dr. Ahmet Kilic who joins the group from the University of Virginia. Drawing upon the growing strength of these programs, additional areas of focus include: advanced heart failure therapies focusing on mechanical circulatory support utilizing the Heart Mate II left ventricular assist device, expanded focus and interest in heart and lung transplantation, and complex aortic surgery.

With the recruitment of Dr. Ahmet Kilic the program will expand its breadth to include aortic surgery in The Aortic Center of Excellence, a collaboration with Dr. Pat Vaccaro and the Vascular Surgery Division at OSUMC. Additional programs of excellence include: extra corporal membrane oxygenation and thoroscopic management of atrial arrhythmias.

**Education**

The cornerstone of academic cardiothoracic surgery is the commitment to training future generations of cardiothoracic surgeons. Given the current challenges in the field of cardiothoracic surgery, this mission is even more important due to decreasing numbers of US-trained general surgery residents entering the field. It is anticipated that there will be a shortfall of early career cardiothoracic surgeons with the retirement of the current generation of surgeons anticipated to occur in the next ten years and a lack of new trainees to take their positions. The Divisions of Cardiac and Thoracic Surgery at The Ohio State University Medical Center are poised to become one of the premier training programs in the field with complimentary programs in cardiac, thoracic and general surgery and a broad spectrum of comprehensive cardiovascular and thoracic surgical therapies. Our overarching goal is to train the next generation of cardiothoracic surgeons to be capable, competent professionals in the field, whether it be in community practice, a university or academic environment. We embrace this challenge and look forward to the opportunities it presents in the current educational environment.

**Research**

Dr. Sampath Parthasarathy has been the academic leader of the research enterprise at the Divisions of Cardiac and Thoracic Surgery. His team of investigators continues to be successful and productive in basic and translational research programs (ROIs) with extensive funding from the National Institute of Health. A number of important clinical research activities, industry sponsored research and developmental funds provide the resources necessary to complete the research mission. With these resources in place, Dr. Parthasarathy and his team have provided important research mentorship for surgical investigators including Dr. Juan Crestanello and Dr. Sai-Sudhakar. These physician/surgeon/scientists represent accomplished academic leaders in the Department of Surgery. Dr. Pawel Kwiatkowski continues to support research activities as the Division strives to distinguish itself as an academic leader in the field of cardiothoracic surgery.



It is our hope and expectation that with a renewed leadership vision and commitment in the areas of education and clinical programs, the divisions of cardiac and thoracic surgery will continue to distinguish themselves as one of the top academic training programs in the country. With the expansion and development of programs such as lung transplantation and aortic surgery to compliment the already outstanding clinical programs, the future is very bright at The Ohio State University Medical Center.

## Faculty

**Robert S. D. Higgins, MD, MSHA**

Professor of Surgery; Chief, Division of Cardiac Surgery  
Program Director, Cardiac and Thoracic Surgery Residency Program  
John H. and Mildred C. Lumley Medical Research Chair  
Director, Comprehensive Transplant Center

**BA:** Dartmouth College, Hanover, NH, 1981

**MD:** Yale University School of Medicine, New Haven, Ct., 1985

**Specialty Training:** Residency in general surgery, University Health Center of Pittsburgh, Pittsburgh, Pa., 1990; fellowship in cardiothoracic surgery, Yale University School of Medicine, New Haven, Ct., 1990-1993; senior registrar in transplantation, Papworth Hospital, Cambridge University, Cambridge, England, 1993; masters, health administration, Virginia Commonwealth University, Richmond, Va., 2005

**Appointment:** July 1, 2010

**Specialty Interests:** Thoracic transplantation, adult cardiac surgery, coronary artery bypass surgery, mechanical circulatory support.

**Research Interests:** Healthcare outcomes, disparities in transplantation and healthcare, ischemia reperfusion injury.



Higgins

**Juan A. Crestanello, MD**

Associate Professor of Surgery

**MD:** University of the Republic of Uruguay Medical School, Montevideo, Uruguay

**Specialty Training:** General surgery residency, University of Maryland Medical System, Baltimore, Md.; cardiothoracic surgery research, Hahnemann University, Philadelphia, Pa., and University of Maryland, Baltimore, Md.

**Appointment:** 2004

**Specialty Interests:** Cardiac surgery

**Research Interests:** Ischemic preconditioning, mitochondrial function during ischemic preconditioning, myocardial ischemia reperfusion injury, cell transplantation, the effect of myocardial oxygen content on survival of transplanted cells



Crestanello

**Michael S. Firstenberg, MD**

Assistant Professor of Surgery

**BA:** University of Chicago, Chicago, IL, 1990

**MD:** Case Western Reserve University, Cleveland, Oh., 1996

**Specialty Training:** The Ohio State University Medical Center, Columbus, Oh.; Cleveland Clinic, Cleveland, Oh.; National Heart, Lung, and Blood Institute, Bethesda, Md.; University Hospitals, Cleveland, Oh.

**Appointment:** 2007

**Specialty Interests:** Adult acquired and congenital cardiac surgery, cardiothoracic critical care, mechanical assist, heart failure

**Research Interests:** Cardiac imaging and physiology, mechanical assist



*Firstenberg*

**Mark Galantowicz, MD**

Associate Professor of Clinical Surgery

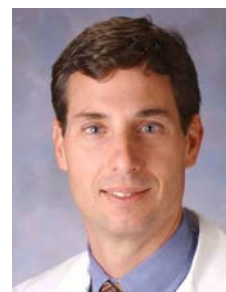
**BA:** University of Pennsylvania, Philadelphia, Pa., 1982

**MD:** Cornell University Medical College, New York, NY, 1987

**Specialty Training:** Columbia-Presbyterian Medical Center, New York, NY

**Appointment:** 2002

**Specialty Interests:** Pediatric transplantation and surgery



*Galantowicz*

**Ahmet Kilic, MD**

Assistant Professor of Surgery

**BS:** The Pennsylvania State University, University Park, Pa., 1998

**MD:** Virginia Commonwealth University, Richmond, Va., 2002

**Specialty Training:** Internship and residency in general surgery; University of Maryland, Baltimore, Md.; fellowship in cardiothoracic surgery, University of Virginia, Charlottesville, Va.

**Appointment:** 2011

**Specialty Interests:** Aortic surgery, heart transplantation, lung transplantation, heart failure

**Research Interests:** Aortic pathology, heart and lung transplantation; heart failure



*Kilic*

**Pawel Kwiatkowski, MD**

Assistant Professor of Surgery

**BA:** ILO Swietochlowice, Poland, 1982

**MD:** Silesian Academy of Medicine, Katowice, Poland, 1988

**Specialty Training:** Silesian Academy Medical Center, Zabrze, Poland; Columbia University, New York, NY

**Appointment:** 1998

**Research Interests:** Transplant immunology, including xenotransplantation and allotransplantation of heart and lung



*Kwiatkowski*

**Patrick I. McConnell, MD**

Assistant Professor of Surgery

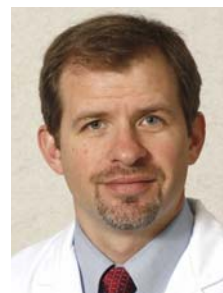
**BA:** Creighton University, Omaha, Ne., 1994

**MD:** University of Nebraska Medical Center, Omaha, NE, 1999

**Specialty Training:** General surgery residency, University of Utah Hospitals, Salt Lake City, Ut.; fellowship in cardiovascular surgery, The Ohio State University Medical Center, Columbus, Oh.; fellowship in congenital heart surgery, Nationwide Children's Hospital, Columbus, Oh., 2010

**Appointment:** 2010

**Specialty Interests:** Heart transplantation, adult cardiac surgery, coronary artery bypass surgery, mechanical circulatory support.



McConnell

**Sampath Parthasarathy, PhD., MBA**

The Karl P. Klassen Professor of Surgery; Director of Research, Division of Cardiothoracic Surgery; Professor of Human Nutrition; Professor, Endocrinology, Diabetes and Metabolism; Professor of Internal Medicine

**PhD:** Indian Institute of Science, Bangalore, India, 1975

**MBA:** University of Phoenix, Phoenix, Az., 2004

**Specialty Training:** Kyoto University, Kyoto, Japan; Duke University, Durham, NC; the Hormel Institute, University of Minnesota, Austin, Mn.

**Appointment:** 2006

**Research Interests:** Vascular biology and medicine



Parthasarathy

**Chittoor B. Sai-Sudhakar, MBBS, FACS, FRCS**

Assistant Professor of Surgery

**BA:** Loyola College, Madras, India, 1975

**BSc:** Presidency College, Madras, India, 1976

**MBBS:** Stanley Medical College, Madras, India, 1982

**Specialty Training:** Yale-affiliated residency, St. Mary's Hospital, Waterbury, Ct.

**Appointment:** 2003

**Specialty Interests:** Aortic surgery, heart failure

**Research Interests:** Pathways in endothelial cells



Sai-Sudhakar

**John H. Sirak, MD**

Assistant Professor of Clinical Surgery

**BA:** Amherst College, Amherst, Ma., 1985

**MD:** Case Western Reserve University, Cleveland, Oh., 1991

**Specialty Training:** General surgery residency, minimally invasive cardiothoracic surgery fellowship, The Ohio State University, Columbus, Oh.; arrhythmia surgery fellowship, Cleveland Clinic, Cleveland, Oh.

**Appointment:** 2004

**Specialty Interests:** Surgery for atrial fibrillation

**Research Interests:** Transplant immunology



Sirak

## New Full-Time Faculty Appointments

**Ahmet Kilic, MD**

Assistant Professor of Surgery

**Patrick I. McConnell, MD**

Assistant Professor of Surgery

## Emeritus Faculty

**J. Terrance Davis, MD**

Professor Emeritus of Clinical Surgery

**B.A.:** Williams College, Williamstown, Ma., 1963

**M.D.:** University of Pennsylvania, Philadelphia, Pa., 1967

**Gerard S. Kakos, MD**

Clinical Associate Professor Emeritus of Surgery

**B.A.:** The Ohio State University, Columbus, Oh., 1964

**M.D.:** The Ohio State University, Columbus, Oh., 1967

**James W. Kilman, MD**

Professor Emeritus of Surgery

**B.S.:** Indiana State University, Terre Haute, In., 1956

**M.D.:** Indiana State University, Indianapolis, In., 1960

**Charles V. Meckstroth, MD**

Professor Emeritus of Surgery

**B.A.:** The Ohio State University, Columbus, Oh., 1944

**M.D.:** The Ohio State University, Columbus, Oh., 1947

**M.M.Sc. (Surgery):** The Ohio State University, Columbus, Oh., 1950

**Howard D. Sirak, MD**

Professor Emeritus of Surgery

**A.B.:** University of Pennsylvania, Philadelphia, Pa., 1943

**M.D.:** The Ohio State University, Columbus, Oh., 1947

**M.M.Sc. (Surgery):** The Ohio State University, Columbus, Oh., 1953

## Clinical Faculty

**Thomas E. Williams, Jr, MD, PhD**

Clinical Associate Professor of Surgery

**BA:** Princeton University, Princeton, NJ, 1957

**MS, MD:** The Ohio State University, Columbus, Oh., 1963

**PhD:** Northwestern University, Evanston, Il., 1969

## Resident Staff

**Dana Booth, MD**

PGY-6

**BS:** University of California at San Deigo, San Diego, Ca., 1997

**MD:** Medical College of Wisconsin, Milwaukee, Wi., 2003

**Sergio Carrillo, MD**

PGY-7

**MD:** Universidad de San Carlos, Guatemala, 2002

**Karen Nelson, MD**

PGY-6

**BA:** University of Kentucky, Lexington, KY, 2000

**BS:** Mercer University, Macon ,Ga., 1997

**DO:** Lake Erie College of Osteopathic Medicine, Bradenton, Fl., 2005

**Charles Jason Rousseau, DO**

PGY-7

**BS:** Samford University, Birmingham, Al., 2000

**DO:** Nova Southeastern University College of Osteopathic Medicine, Ft. Lauderdale, Fl., 2004

## Mission

The Division of Cardiac Surgery is dedicated to preserving and improving life for patients with heart and valve disease.

## Research Programs

- Ablate continued access (Atricure synergy bipolar RF energy lesions for permanent atrial fibrillation treatment during concomitant on-pump endo/epicardial cardiac surgery)
- Anticoagulation strategy with bioprosthetic valves postoperative event registry
- Assessment of adiponectin in severely septic patients with or without hyperglycemia
- Atrial fibrillation treatment during concomitant on-pump endo/epicardial cardiac surgery
- Beta-blockade in chronic mitral regurgitation: moving from laboratory experiment to clinical investigation
- Biofilm in deep sternal wound infection after cardiac surgery: pilot study
- Cardiac surgery in patients 80 years and older
- Cardiomyocytes from failing human hearts
- CardioWest Temporary Total Artificial Heart market surveillance study
- Centrimag short term ventricular assist system
- Centrimagvas: use as an RVAS following implantation of a commercially approved LVAS
- Cerebrovascular events in high-risk subjects undergoing coronary artery bypass
- Changing characteristics of infections in patients requiring long-term ventricular assist devices
- Characterization of hyponatremia during cardiac surgery and its affects of outcomes
- Circulating endothelial cells and thrombosis
- Clinical and economic outcomes in patients with endocarditis
- Clinical evaluation of the Shelhigh, Inc., model NR-2000 plus and model NR-2000C plus no-react treated porcine bioprosthesis for aortic valve replacement
- Clinical Trial of the On-X Valve Using Low Dose Anticoagulation



- Comparative clinical and pharmacoeconomic study comparing Argatroban® IV vs. Desirudin SC for patients with suspected heparin-induced thrombocytopenia (HIT) without clinically evident thrombosis: PREVENT-HIT
- Comparative mutational profiling as the standard of care in assessing lung lesions.
- Cormatrix study.
- C-pulse: implantable counterpulsation pump (ICP) a heart assist device
- CTSN- moderate mitral regurgitation study
- CTSN- Severe mitral regurgitation study
- Destiny trial: effects of mitral valve annuloplasty with the Geoform ring on left ventricular geometry and function in patients with Cardiomyopathy
- Devices and implantable cardiac defibrillators. A single center experience II
- Effects of dietary-induced weight loss on HDL-functionality in dysglycemic African Americans and white Americans
- Effect of intramyocardial injection of mesenchymal precursor cells on myocardial function in LVAD bridge to transplant patients
- Effects of sesame oil supplementation on cardiovascular risk factors in obese and non-obese otherwise healthy subjects
- Efficacy of aspirin on HDL-C functionality (Paraoxonase enzyme activity {PON1 }) and subclinical atherosclerosis in African American and white American women
- Efficacy, immunogenicity, and safety of a single dose of Merck 0657NI
- Emergency use of the Heartware left ventricular device for the treatment of heart failure
- Evaluation of bleeding rates in recipients of pulsatile versus non-pulsatile ventricular assist devices
- Evaluation of glycemic control in cardiac surgery patients
- Evaluation of outcomes following mitral valve repair/replacement in severe chronic ischemic mitral regurgitation
- Evaluation of the Heartware LVAD system for the treatment of advanced heart failure

- Evaluation of the Levacor ventricular assist device as a bridge to cardiac transplantation
- Extracorporeal Life Support Organization (ELSO) registry
- Fibrillation in subjects receiving the Cormatrix ECM for pericardial closure
- Fulminant myocarditis: micro RNAs as a predictive biomarker and a therapeutic target
- Gastrointestinal bleeding in patients with ventricular assist devices: etiology, endoscopic diagnostic and therapeutic maneuvers
- Glycemic control and variability in congestive heart failure exacerbation
- Graft (CABG) surgery using cardiopulmonary bypass (protocol no. P05633): red CABG trial (Reduction in cardiovascular events by Acadesine in subjects undergoing CABG)
- Harefield recovery protocol study (HARPS): a non-randomized, open label, multi-center evaluation of potential recovery of heart functions in patients with refractory chronic heart failure by treatment with a combination of LVAD, drugs to induce maximal reverse remodeling and the beta-2 adrenergic receptor agonist, Clenbuterol
- Heartmate II LVAS pivotal study protocol
- HeartMate II VAD destination therapy
- Hybrid revascularization observational study
- Hybrid revascularization: a collaborative approach to coronary artery disease
- Hyponatremia during cardiac surgery
- Immunobiology of insulin resistance: The role of T regulatory cells
- Immunobiology of transplant related heart failure
- Intensive glycemic control for congestive heart failure exacerbation
- Interagency registry of mechanically assisted circulatory support (INTERMACS)
- Intra- and post-operative glycemic control in both diabetic and non-diabetic
- Isolation of monocytes and lipoproteins from normal human blood
- Levitronix Centrimag VAS failure to wean from cardiopulmonary bypass trial

- Maintenance of platelet inhibition with Cangrelor after discontinuation of thienopyridines in patients undergoing surgery: the bridge trial
- Mechanical, cellular and pharmacological therapy for congestive heart failure
- Medtronic Core Valve U.S. pivotal trial
- Medtronic Mosaic® vs. Carpentier-Edwards®Perimount® all-cause patient survival
- Myocardial gene and protein expression in end-stage heart failure
- Multicenter, randomized, double-blind, parallel-group, placebo controlled study of 2 mg/kg bolus plus 24-hour 0.05 mg/kg/hr infusion of Pexelizumab in patients undergoing coronary artery bypass grafting with cardiopulmonary bypass
- Novel approach to generate regulatory T cells using CD103 depletion
- Occurrence of ventricular arrhythmias in patients with left ventricular assist device
- Off-pump mechanical circulatory support device (MCSD) implantation: a single center study
- Off-pump coronary artery bypass in low ejection-fraction patients
- Omega-3 fatty acids for the prevention of atrial fibrillation after cardiac surgery
- OSU Heart Center Biobank
- Patient discharge using the AB portable driver system.
- Pilot study assessing robotic video assisted thoracic surgery (RATS) versus standard thoracotomy for malignant lesions
- Patients undergoing coronary artery bypass graft surgery and outcomes with recent Clopidogrel exposure: a case control study
- Patients undergoing high-risk coronary artery bypass graft (CABG) surgery
- Performance between the Mitroflow valve and the Carpenter-Edwards Magna valve in the aortic position
- Permanent atrial fibrillation treatment during concomitant on-pump endo/epicardial cardiac surgery
- Phase III, randomized, double-blind, placebo-controlled, two arm parallel, multicenter study evaluating the efficacy and safety of dexmedetomidine

- Pilot, multicenter, randomized, double-blind, placebo-controlled study to evaluate Nesiritide infusion, initiated post induction of anesthesia, in the management of coronary artery bypass graft (CABG) patients requiring cardiopulmonary bypass (CPB)
- Prevention of postoperative delirium in patients undergoing heart surgery with cardiopulmonary bypass
- Prospective, randomized, controlled, un-blinded, multi-center clinical trial to evaluate the Heartware ventricular assist system (VAS) for destination therapy of advanced heart failure
- Prospective, randomized evaluation of new onset postoperative atrial fibrillation in subjects receiving the Cormatrix ECM for pericardial closure
- Protect II: a prospective, multi-center, randomized controlled trial for the Impella Recover LP 2.5 system versus intra aortic balloon pump (IABP) in patients undergoing non emergent high risk PCI
- Randomized clinical trial of the safety and efficacy of the DeBakey VAD as destination therapy in patients with end-stage heart failure
- Randomized, controlled, phase 3 study of gentamicin-Collagen Sponge (Collatamp G) in cardiac surgical subjects at higher risk for sternal wound infection
- Randomized, double-blind, placebo-controlled, dose-ranging, multi-center to evaluate the cardiovascular and cerebrovascular of MC-1 in patients undergoing high-risk coronary artery bypass graft (CABG) surgery
- Randomized, multicenter, double-blind, group-sequential study to evaluate the efficacy, immunogenicity, and safety of a single dose of Merck 0657nI staphylococcus aureus vaccine V710 in adult patients scheduled for cardiothoracic surgery
- Randomized study to compare sizing, implant techniques and hemodynamic performance between the Mitroflow and the Carpenter-Edwards Magna pericardial tissue valves in the aortic position
- Recover I: Impella Recover LP/LD 5.0 Support System: a clinical safety and feasibility study
- Recover II: a prospective randomized trial investigating the use of the Impella
- Recover LP 2.5 system in patients with acute myocardial infarction induced hemodynamic instability
- Recover LP 2.5 system versus intra aortic balloon pump (IABP) in patients undergoing non emergent high risk PCI

- Retrospective review of fungal infections in patients with left ventricular assist device in the Echinocandin era
- Retrospective and prospective study of patients with atrial fibrillation and the post-operative outcomes, quality of life, and arrhythmia re-occurrence rates after undergoing the total thoroscopic maze procedure
- Retrospective study on the effect of mitral valve annuloplasty on left ventricular geometry and function in patients with Cardiomyopathy
- Role and mechanism of oxygen tension and oxidative stress in regulating the development of intimal hyperplasia in human saphenous veins cultures ex-vivo
- Role of endothelial nitric oxide synthase in local blood pressure regulation in patients with vascular disease
- Role of macrophages in acute cellular rejection in cardiac transplantation
- Role of T cells & HSP70 in ischemic spinal cord injury after thoracoabdominal aortic aneurysm repair at The Ohio State University Medical Center – prospective analysis
- Scherring Plough CABG clinical research study
- Sexual function questionnaire for patients with Left Ventricular Assist Device (LVAD)
- Staphylococcus aureus vaccine (V710) in adult patients scheduled for cardiothoracic surgery
- Star outcomes: a multicenter data registry for outcomes from surgical treatment of atrial arrhythmias
- STICH protocol for surgical treatment for ischemic heart (STICH) failure trial
- Study comparing Angiomax (Bivalirudin) to heparin with protamine reversal in patients undergoing on-pump coronary artery bypass (OPCAB) surgery
- Study of factors that prevent improvement in left ventricular function after surgical revascularization
- Study to determine the presence of oxidized low density lipoprotein (OX-LDL) and its degradation products in the blood and left ventricular tissues of patients with heart failure
- Surgical interventions for moderate ischemic mitral regurgitation
- Syncardia Cardiowest Temporary Total Artificial Heart (TAH-T) post market surveillance study

- SynCardia Freedom Driver System study
- Thoratec left ventricular assist device congestive heart failure sheep
- Thrombosis model of heart failure in sheep
- Ultrafiltration for severe volume overload in patients with a left ventricular assist device
- VAD Watch Telehealth Monitoring in the residential setting
- Ventricular assist device (LVAD), drugs to induce maximal reverse remodeling, and the beta-2 adrenergic receptor agonist, Clenbuterol
- Ventricular assist devices and implantable cardiac defibrillators: A single center experience
- Voyager I: Patient discharge using the AB Portable Driver System

## Accomplishments in Research

- Klassen Research Day, June 2011, Klassen lecturer Irving Kron, MD, President of the American Association for Thoracic Surgery, Chairman of the Department of Surgery and the S. Hurt Watts Professor of Surgery, University of Virginia, Charlottesville, VA, “The Present and Future of Cardiothoracic Surgery” and Special Guest Lecturer Ann Marie Schmidt, MD, Director of the Diabetes Research Program, first Iven Young Professor of Endocrinology, New York University Langone Medical Center, New York, NY, “RAGE, Signal Transduction and the Complications of Diabetes”
- A team of cardiac surgeons and interventional cardiologists led by surgical principal investigator Dr. Juan Crestanello, associate professor of surgery, Division of Cardiac Surgery and co-principal investigator Dr. John P. Cheatham, director of interventional cardiology at Nationwide Children’s Hospital and professor of pediatrics and internal medicine at The Ohio State University College of Medicine, are participating in a nationwide clinical trial that may lead to new hope for patients with aortic stenosis that were previously considered inoperable. The team at Ohio State is one of 40 centers taking part in the CoreValve U.S. Pivotal Trial. The first CoreValve implantation at Ohio State took place in March.

## Active Research Grants

**Crestanello J.** “A randomized study to compare sizing, implant techniques and hemodynamic performance between the Mitroflow and the Carpentier- Edwards Magna pericardial tissue valves in the aortic position.” November 12, 2008 – October 13, 2011, \$3,000.00. Co-Investigator.

**Crestanello J.** “A randomized, multicenter, double-blind, group-sequential study to evaluate the efficacy, immunogenicity, and safety of a single dose of Merck 0657nI staphylococcus aureus vaccine (V710) in adult patients.” November 11, 2008 – November 11, 2010, \$1,500.00. Co-Investigator.

**Crestanello J.** “Measurement of free radical generation in the heart”. NIH Minority Supplemental Grant R01 HL038324. March 1, 2006 – November 30, 2010, \$112,125/year.

**Crestanello J.** “Characterization of hyponatremia during cardiac surgery and its effects on outcomes” Biogen IDEC. August 11, 2009 – August 10, 2011, \$22,040.

**Crestanello J.** “Hybrid revascularization: a collaborative approach to coronary artery disease” American Heart Association Great Rivers Affiliate Spring 2010 Clinical Research Program 10CRP4160147. July 1, 2010 – June 30, 2012, \$121,000.

**Crestanello J.** 2011 Medtronic Core Valve US Pivotal Trial. January 11, 2011 – December 30, 2015, \$1,000,000.

**Crestanello J.** Hybrid revascularization vs. percutaneous coronary intervention: a planning grant. NIH. September 30, 2009 – August 31, 2011.

**Firstenberg MS.** “Evaluation of outcomes following mitral valve repair/replacement in severe chronic ischemic mitral regurgitation.” Cardiothoracic Clinical Trials Network/NIH. December 2009 – December 2014, \$211,557. Co-Investigator.

**Firstenberg MS.** “Maintenance of platelet inhibition with cangrelor after the discontinuation of thienopyridines in patients undergoing surgery (BRIDGE).” The Medicines Co. May 2010 – May 2014, \$65,000. Principal Investigator.

**Firstenberg MS.** “A randomized study to compare sizing, implant techniques and hemodynamic performance between the mitroflow and the carpentier- edwards magna pericardial tissue valves in the aortic position.” Sorin Biomedical. November 12, 2008 - October 13, 2011, \$106,250. Principal Investigator.

**Firstenberg MS.** “Temporary circulatory support for severe sepsis.” Maquet Cardiovascular. January 2011 – present, \$4,000. Principal Investigator.



**Firstenberg MS.** “Clinical and economic outcomes in patients with endocarditis.” June, 2010 – present, Principal Investigator.

**Firstenberg MS.** “Prospective, randomized evaluation of new onset postoperative atrial fibrillation in subjects receiving the Cormatrix ECM for pericardial closure.” Cormatrix. February 27, 2010 – present, \$20,550. Co-Investigator.

**Firstenberg MS.** “The effect of acadesine on clinically significant adverse cardiovascular and cerebrovascular events in high-risk subjects undergoing CABG surgery using cardiopulmonary bypass: RED-CABG Trial.” Schering Plough. August, 2009 – present \$70,000. Principal Investigator.

**Firstenberg MS.** “A comparative clinical and pharmacoeconomic study comparing Argatroban IV vs. Desirudin SC for patients with suspected heparin-induced thrombocytopenia (HIT) with or without thrombosis syndrome (HIT/TS): PREVENT-HIT.” Canyon Pharmaceuticals, Inc. (10013041): PREVENT- HIT. August 2009 – present, \$33,881. Co-Investigator.

**Firstenberg MS.** “EXCLUDE: Exclusion of the left atrial appendage with the AtriClip LAA Exclusion System in patients undergoing concomitant cardiac surgery.” Atricure, Inc. April 2009 – present \$45,210. Co-Investigator.

**Firstenberg MS.** “The effect of intramyocardial injection of mesenchymal presuror cells on myocardial function in LVAD bridge to transplant patients.” National Institutes of Health. 2009 – present, \$52,150. Co-Investigator.

**Firstenberg MS.** “A randomized clinical trial of intrinsic pathway antagonists in patients undergoing implantation of left ventricular assist devices.” National Heart, Lung and Blood Institute, National Institutes of Health, TransTech Pharma. 2009 – present, \$31,100. Co-Investigator.

**Firstenberg MS.** “Ablate Trial (Atricure Synergy bipolar RF energy lesions for permanent atrial fibrillation treatment during concomitant on-pump endo/epicardial cardiac surgery).” Atricure, Inc. 2009 – present, \$39,855. Co-Investigator.

**Firstenberg MS.** “Recover I: Impella Recover Lp/Ld 5.0 Support System: A clinical safety and feasibility study.” Abiomed, Inc. 2009 – present, \$10,000. Co-Investigator.

**Firstenberg MS.** “Evaluation of the Ventrassist left ventricular assist device for the treatment of advanced heart failure-destination therapy.” Ventracor Limited ABN. August 2007 – present, \$337,500. Co-Investigator.

**Firstenberg MS.** “Evaluation of the Ventrassist left ventricular assist device as a bridge to cardiac transplantation-pivotal trial.” Ventracor Limited ABN. 2007 – present, \$187,500. Co-Investigator.

**Firstenberg MS.** “Destiny trial: Effects of mitral valve annuloplasty with the geoform ring on left ventricular geometry and function in patients with cardiomyopathy.” Edwards Life Sciences. October 2006 – present, \$33,762. Co-Investigator.

**Firstenberg MS.** “Lxp-002: Levitronix Centrimag vas failure to wean from cardiopulmonary bypass trial.” Levitronix, LLC. March 2005 – present, \$17,000. Co-Investigator.

**Firstenberg MS.** “Temporary circulatory support for severe sepsis.” Maquet Cardiovascular. 2011, \$4,000.00. Principal Investigator.

**Firstenberg MS.** “A randomized, multicenter, double-blind, group-sequential study to evaluate the efficacy, immunogenicity, and safety of a single dose of Merck 0657nI staphylococcus aureus vaccine (V710) in adult patients.” Merck. November 11, 2008 – November 11, 2010, \$49,663. Principal Investigator.

**Firstenberg MS.** “Retrospective review of fungal infections in patients with left ventricular assist device in the echinocandin era.” Merck. February 18, 2008 – February 17, 2010, \$22,500. Principal Investigator.

**Firstenberg MS.** “ECAL-CCPB-08-07: CONSERV™ – 2 (Clinical outcomes and safety trial to investigate ecallantide’s effect on reducing surgical blood loss volume) – A phase 2 randomized double-blind active-controlled study in subjects exposed to cardio-pulmonary bypass.” Cubist Pharmaceuticals, Inc. November 2009 – January 2010, \$70,575. Principal Investigator.

**Firstenberg MS.** “ECAL-PCPB-08-02: CONSERV™ – 1 (Clinical outcomes and safety trial to investigate Ecallantide’s effect on reducing surgical blood loss volume) – A phase 2 randomized placebo-controlled dose-ranging study in subjects exposed to cardio-pulmonary bypass.” Cubist Pharmaceuticals, Inc. November 2009 – January 2010, \$75,111. Principal Investigator.

**Firstenberg MS.** “A comparative clinical and pharmacoeconomic study comparing Argatroban IV vs. Desirudin SC for patients with suspected heparin-induced thrombocytopenia (HIT) without clinically evident thrombosis: PREVENT-HIT.” 2009 – 2010, \$33,881. Co-Investigator. Date Submitted: 2009.

**Galantowicz ME.** “Surgical strategy and neurological outcomes for newborns with hypoplastic left heart syndrome.” NIH. June 1, 2010 – June 03, 2011, \$175,000. Principal Investigator.

**Galantowicz ME.** “Delineation of modes of stenosis in PDA stents.” Saving Tiny Hearts Foundation. 2010 – present, \$100,000. Collaborator.

**Galantowicz ME.** “Hemodynamics after the hybrid palliation of hypoplastic left heart.” Nationwide Children’s Research Institute. May 4, 2010 – May 3, 2011, \$50,000. Co-Investigator.

**Galantowicz ME.** “Stress response in children undergoing cardiac surgery: A prospective randomized comparison between low dose Fentanyl, low dose Fentanyl plus dexmedetomidine, and high dose Fentanyl.” Nationwide Children’s Research Institute. April 15, 2008 – March 16, 2011 \$50,000. Co-Investigator.

**Galantowicz ME.** “Randomized, controlled trial of early versus delayed umbilical cord clamping in infants with congenital heart disease.” American Heart Association. December 4, 2009 – December 3, 2010, \$120,000. Co-Investigator.

**Kwiatkowski P.** “Noninvasive monitoring of in situ oxygenation and cell therapy in infarct heart.” National Institute of Health. July 1, 2007 – June 30, 2012, \$1,250,000. Co-Investigator.

**Parthasarathy S.** “Non-pharmacological control of atherosclerosis.” NIH/NCCAM. July 1, 2010 – June 30, 2015, \$250,000. Principal Investigator.

**Parthasarathy S.** “Novel mechanisms by which aspirin might protect against atherosclerosis.” National Heart, Lung, and Blood Inst. July 1, 2008 – June 30, 2012, \$375,000. Principal Investigator.

**Parthasarathy S.** “DDP IV inhibition with alogliptin in diabetic atherosclerosis (AIDA study).” Takeda Pharmaceuticals Inc. April 4, 2009 – December 31, 2010, \$157,076. Principal Investigator.

**Parthasarathy S.** “CCTS Year 2 Pilot.” National Center for Research Resources. December 1, 2009 – November 30, 2010, \$30,000. Principal Investigator.

**Parthasarathy S.** “Development of nuclear antioxidants for the treatment of endometriosis.” Emory Univ. September 1, 2008 – August 31, 2010, \$37,500. Principal Investigator

**Sai-Sudhakar CB.** “Mechanical circulatory support: Development and use of quality of life instruments.” Northwestern University. April 4, 2011 – March 31, 2015, \$250,000. Collaborator. Date Submitted: 2010.

**Sai-Sudhakar CB.** “Destiny trial: Effects of mitral valve repair with the Geoform Ring on cardiomyopathy.” Ohio State University. January 25, 2007 – December 2012, \$33,762. Co-Investigator.

**Sai-Sudhakar CB.** “Evaluation of the HeartWare LVAD system for the treatment of advanced heart failure.” HeartWare Inc. November 15, 2010 – November 15, 2012, \$140,000. Principal Investigator.

**Sai-Sudhakar CB.** “Dexmedetomidine for the treatment of delirium after heart surgery (DexinDelir).” Thorax-Kärkliniken. July 7, 2010 – May 2012, \$50,000. Co-Investigator.

**Sai-Sudhakar CB.** “Comparison of surgical and medical treatment for congestive heart failure and coronary artery disease (STICH).” National Heart, Lung, and Blood Institute (NHLBI). September 11, 2001 – December 2011, \$252,000. Co-Investigator.

**Sai-Sudhakar CB.** “Surgical interventions for moderate ischemic mitral regurgitation.” NHLBI, NINDS & CIHR. December 2008 – November 2011, \$211,557. Principal Investigator

**Sai-Sudhakar CB.** “Evaluation of outcomes following mitral valve repair / replacement in severe chronic ischemic mitral regurgitation.” National Heart, Lung and Blood Institute (NHLBI), Canadian Institutes of Health Research (CIHR). December 2008 – November 2011, \$211,557. Principal Investigator.

**Sai-Sudhakar CB.** “CentriMag ventricular assist system in treating failure-to-wean from cardiopulmonary bypass.” Levitronix Inc. October 8, 2009 – June 2011, \$17,000. Co-Investigator.

**Sai-Sudhakar CB.** “MRVSS - 02: Randomized sizing and hemodynamic study Mitroflow vs. Magna (tissue valves).” Sorin Group USA, Inc. July 18, 2008 – June 2011, \$134,920. Co-Investigator.

**Sai-Sudhakar CB.** “Is PTEN a modulator of reactive pulmonary hypertension?.” National Institute of Health- Vascular Cell and Molecular Biology. June 2010, \$250,000. Dual PI.

**Sai-Sudhakar CB.** “Is PTEN the key to vascular remodeling in pulmonary hypertension? Development of a clinical model for study and treatment.” American Heart Association. January 2010, \$45,000. Mentor.

**Sai-Sudhakar CB.** “A study of staphylococcus aureus vaccine (V710) in patients scheduled for cardiothoracic surgery.” Merck. August 17, 2008 – present, \$49,663. Co-Investigator.

**Sai-Sudhakar CB.** “Auto-antibodies to circulating endothelial cells inhibit vascular repair and myocardial recovery.” National Institute of Health. \$1,500,000. Principal Investigator.

**Sai-Sudhakar CB.** “Levacor™ ventricular assist device (VAD) bridge to transplant study.” World Heart Corporation. October 24, 2009 – April 2011, \$90,000. Principal Investigator.

**Sai-Sudhakar CB.** “Establishment of a multi-investigator team for evaluation of preclinical cardiac stem cell therapy.” Center for Clinical And Translational Sciences - CCTS. 2010 – 2011, \$15,000. Collaborator.

**Sai-Sudhakar CB.** “Study to determine the presence of oxidized low density lipoprotein (OX-LDL) and its degradation products in the blood and left ventricular tissues of patients with heart failure. January 2008 – January 2011, (Internal Funding).” Co-Investigator.

**Sai-Sudhakar CB.** “Ross Academic Enrichment Grant.” Ross Heart Hospital. 2008 – 2011, \$78,000. Principal Investigator.

**Sai-Sudhakar CB.** “A randomized study to compare sizing, implant techniques and hemodynamic performance between the Mitroflow and the Carpentier-Edwards Magna pericardial tissue valves in the aortic position.” Sorin Biomedical. November 12, 2008 – December 13, 2010, \$106,250. Co-Investigator.

**Sai-Sudhakar CB.** “Safety and efficacy of an antibiotic implant in cardiac surgical subjects at higher risk for sternal wound infection.” Innocoll Technologies. January 2, 2008 – October 15, 2010, \$167,000. Principal Investigator.

**Sai-Sudhakar CB.** “TMC-BIV-02-06: A study comparing Angiomax (Bivalirudin) to heparin with Prota-

mine Reversal in patients undergoing on-pump coronary artery bypass (OPCAB) surgery.” The Medicines Company. November 26, 2003 – July 6, 2010, \$20,000. Co-Investigator.

**Sai-Sudhakar CB.** “Trial using Impella LP 2.5 System in patients with acute myocardial infarction induced hemodynamic instability (RECOVER II).” Abiomed Inc. September 2, 2009 – May 25, 2010, \$20,000. Co-Investigator.

**Sai-Sudhakar CB.** “RECOVER I Impella RECOVER LP/LD 5.0 Support System safety and feasibility study.” Abiomed Inc. January 8, 2008 – May 25, 2010, \$10,000. Co-Investigator.

**Sai-Sudhakar CB.** “Outcomes and safety trial to investigate Ecallantide’s effect on reducing surgical blood loss volume in subjects exposed to cardio-pulmonary bypass during cardiac surgery at high risk of bleeding (CONSERV-2).” Cubist Pharmaceuticals. April 26, 2009 – April 10, 2010, \$70,575. Co-Investigator.

**Sai-Sudhakar CB.** “A dose-ranging safety and efficacy study of Ecallantide to reduce surgical blood loss volume (CONSERV-1).” Cubist Pharmaceuticals. December 29, 2008 - April 9, 2010, \$75,111. Co-Investigator.

**Sai-Sudhakar CB.** “Evaluation of the HeartWare left ventricular assist device for the treatment of advanced heart failure (ADVANCE).” HeartWare, Inc. September 10, 2008 – February 1, 2010, \$140,000. Co-Investigator.

**Sai-Sudhakar CB.** “The effect of Acadesine on reducing cardiovascular and cerebrovascular adverse events in coronary artery bypass graft (CABG) surgery (Study P05633AM1) (RED-CABG).” Schering-Plough. 2009 – 2010, \$20,000. Co-Investigator.

**Sai-Sudhakar, CB.** “Davis Bremmer Research Grant.” Davis & Bremmer Research Grant. 2008 – 2010, \$50,000. Principal Investigator.

**Sai-Sudhakar, CB.** “Protect II, A prospective, multicenter randomized controlled trial (PROTECT II).” Abiomed Inc. 2007 – 2010, \$25,000. Co-Investigator.

**Sai-Sudhakar, CB.** “Randomized On-X anticoagulation trial.” Medical Carbon Research Institute, Inc. 2006 – 2010, \$40,000. Principal Investigator.

## Clinical Programs

- Adult cardiothoracic surgery
- Aortic surgery
- Arrhythmia surgery

- Heart failure surgery
- Heart transplantation
- Lung transplantation
- Mechanical circulatory support
- Minimally invasive heart surgery
- Robotic surgery
- Thoracic oncology
- Total artificial heart transplantation

## Accomplishments in Clinical Care

- Dr. Juan Crestanello, associate professor of surgery, Division of Cardiac Surgery and co-principal investigator Dr. John P. Cheatham, director of interventional cardiology at Nationwide Children's Hospital and professor of pediatrics and internal medicine at The Ohio State University College of Medicine, led a team that performed the first CoreValve implantation at Ohio State in March 2011.
- Dr. Mark Galantowicz was listed as *Best Doctors in America, 2011-2012* in pediatric cardiac surgery.

## Clinical Statistics

OR Procedures	3,221
Outpatient Visits	1,643
Admissions	997
Patient Days	10,880
Average Length of Stay (Days)	5.34

## Educational Programs

- Two-year cardiothoracic surgery fellowship accredited by the Accreditation Council for Graduate Medical Education.
- One-year fellowship in advanced heart failure/transplantation/mechanical circulatory support.
- Comprehensive rotation in cardiothoracic surgery for first- and third-year residents in general surgery.
- Eight week Summer Scholars program exposing first year medical students to the field of cardiothoracic surgery.

## Accomplishments in Education

- Completion of the cardiothoracic surgery fellowship by Dr. C. Jason Rousseau and Dr. Sergio A. Carrillo on June 30, 2011.
- Dr. Wing C. Yeen completed the fellowship in mechanical and circulatory support on September 30, 2010
- Hosting the Samuel J. Roessler Memorial Medical Research Scholarship medical student, Cassondra Majestic, under the direction of her research advisor, Dr. Susan Moffatt-Bruce
- Dr. Higgins elected to ACGME Thoracic Surgery Residency Review Committee

## Accomplishments in Outreach

- Dr. Robert S. D. Higgins and Dr. Chittoor B. Sai-Sudhakar presented at Heart Failure at the 'Shoe symposium held November 11-12, 2010 at The Ohio State University, Columbus, Ohio.

## Publications

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**Firstenberg MS**, Smith JM, Abel E, Blais D, **Louis LB**, **Sun B**, Moffatt-Bruce S. 2010. Extra-corporeal membrane oxygenation for post-cardiotomy respiratory failure. *Journal of Mechanical Circulatory Support*. Edited by Feldman, David MD, PhD. (September 16)

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**Ravi Y, Firstenberg M, Crestanello J, Sudhakar CB.** Mechanical circulatory support for the visually impaired: is it appropriate? *Expert Rev Med Devices*. 2011 Mar;8(2):155-7. PubMed PMID: 21381908.

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**Sirak J**, Jones D, Schwartzman D. The five-box thoracoscopic Maze procedure. *Ann Thorac Surg* 2010;90:986-989.

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**Crestanello JA**, Phillips G, **Sai-Sudhakar CB, Sirak J, Firstenberg MS, Higgins, RSD**, Abraham W. 2011. Relationship between preoperative sodium and clinical outcomes after cardiac surgery [Abstract]. *J. Am. Coll. Cardiol.* Vol. 57, no. 14. (April 5): E1392. (Published)

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Emami S, O'Keefe C, **Ravi Y, Higgins RSD, Crestanello JA, Firstenberg MS, Sirak J**, McBrair K, Hasan AK, **Sai-Sudhakar CB**. 2011. Consideration for serial surveillance of aortic valve following implantation of continuous flow left ventricular assist device. [Abstract]: *Journal of Heart and Lung Transplantation* [Peer Reviewed] (Formally Accepted)

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**Firstenberg MS, Rousseau J**, Kalbfleisch S, Houmsse M, Augostini R, Hummel J, Higgins R, Daoud E, **Crestanello JA, Sai-Sudhakar CB, Sirak J**, Love C. Incidence and outcomes of emergent cardiovascular surgery following major complications during electrophysiology procedures. *International Journal of Cardiology*. 2011;147(suppl 2): S37-S38.

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Naguib AN, Corridor M, **Phillips A**, Olshove V, **Galantowicz M**, Tobias JD. Perioperative care of an infant with an anomalous left innominate artery arising from the main pulmonary artery. *J Intensive Care Med*. Accepted for publication (February 2011). PMID: 21320862

**Phillips A**, Gomez D, Preston T, Schwartz R, McKee C, Nicol K, V Olshove. Developing a comprehensive bleeding protocol for cardiac ECMO patients: Reduces bleeding and neurological events. The 27th CNMC Symposium: ECMO & the Advanced Therapies for Respiratory Failure. Keystone, CO, February 20-24, 2011.

Preston TJ, Gomez D, Olshove VF, Duffy VL, Neal MS, Nicol KK, Chicoine LG, **McConnell P, Phillips A.** Inlet pressure: Moving target or set it and forget it for all patients? The 27th CNMC Symposium: ECMO & the Advanced Therapies for Respiratory Failure. Keystone, CO, February 20-24, 2011

Preston TJ, Gomez D, Olshove VF, Duffy VL, Neal MS, Nicol KK, **Phillips A,** LG Chicoine. Zero balance ultrafiltration during ECMO removes circulating cytokines. The 27th CNMC Symposium: ECMO & the Advanced Therapies for Respiratory Failure. Keystone, CO, February 20-24, 2011

**Ravi Y,** Karuppayyah S, Meduru S, Khan M, Citro L, Rivera BK, **Sai-Sudhakar CB,** Kuppusamy P. 2010. PTEN is the key to vascular remodelling in pulmonary hypertension [Abstract]. (November) 2010. ed. Vol. Vol 49, no. S50: *Free Radical Biology and Medicine*. (November) [Peer Reviewed] (Published)

**Quarrie R, Lee DS,** Erdahl W, Pfeiffer DR, Zweier JL, **Crestanello JA.** Ischemic preconditioning increases mitochondrial sensitivity to proton leak leading to decreased reactive oxygen species production. Poster Presentation, 10th Annual DHLRI Research Day, Columbus, OH, October 12th, 2010

**Quarrie R, Lee DS,** Erdahl W, Pfeiffer DR, Zweier JL, **Crestanello JA.** Increased mitochondrial sensitivity to proton leak is responsible for decreased reactive oxygen species production in ischemic preconditioning. *Journal of Surgical Research*, 2011;165: 262-263

**Quarrie R, Lee DS,** Erdahl W, Pfeiffer DR, Zweier JL, **Crestanello JA.** Mitochondria uncoupling does not decrease reactive oxygen species production after ischemia reperfusion. Society of Black Academic Surgeons Scientific Symposium Boston, MA, April, 30 2011.

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**Quarrie R, Lee DS,** Pfeiffer DR, Zweier JL, **Crestanello JA.** "Proton leak does not decrease mitochondrial reactive oxygen species production after ischemia-reperfusion." 10<sup>th</sup> Annual OSUMC Research Day. The Ohio State University Medical Center. Columbus, OH, April 17, 2011

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**Quarrie R, Lee DS, Cramer B, Erdahl W, Pfeiffer DR, Zweier JL, Crestanello JA.** “Preservation of the NADPH Redox System is not responsible for the protective effects of ischemic preconditioning.” The American College of Surgeons’ 97<sup>th</sup> Annual Clinical Congress, Surgical Forum, San Francisco, CA, October 25, 2011

**Ravi Y, Selvendiran K, Rivera BK, Meduru S, Citro L, Khan M, Trigg N, Sai-Sudhakar CB, Kuppusamy P.** 2010. PTEN is a key mediator of vascular remodeling in pulmonary hypertension [Abstract]. *10th Anniversary Research Day, Dorothy M. Davis Heart and Lung Research Institute (Poster Presentation). Columbus, OH, USA. (October 12).* Columbus, OH, USA. (October 12) [Editor Reviewed] (Unspecified)

**Rousseau J, Sai-Sudhakar CB, Crestanello JA, Sirak J, Higgins RSD, Love C, Fisrtenberg MS.** Management of electrophysiology complications with emergent surgical intervention. 22<sup>nd</sup> Annual Presidential Symposium of the Columbus Surgical Society. Mt. Carmel Medical Center. Columbus, OH, March 12, 2011

**Sai-Sudhakar CB, Brewer RJ, Emami S, Ravi Y, Slaughter MS, Sundareswaran K, Farrar D, John R.** 2011. Patients with low compared to high body mass index gain more weight after continuous flow LVAD implant [Abstract]: *Journal of Heart and Lung Transplantation* [Peer Reviewed] (Formally Accepted)

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**Sirak J, Schwartzman D.** Interim results of the five-box thoroscopic maze procedure [Abstract]. Society of Thoracic Surgeons Meeting, San Francisco, CA, January 2012.

**Sundaram J, Nandave M, Parthasarathy S, Bonilla D, Singaravelu J, Sai-Sudhakar CB.** 2010. Circulating platelet aggregate denudes endothelium and thereby releases endothelial cells and endothelial cell derived particles [Abstract]. *10th Anniversary Research Day, Dorothy M. Davis Heart and Lung Research Institute (Poster Presentation).* Columbus, OH, USA. (October 12) [Editor Reviewed] (Unspecified)

**Tobias JT, Schechter WS, Phillips A, Weinstein S, Michler R, Berkenbosch JW, Montoya C.** Clevidipine for perioperative blood pressure control in infants and children undergoing cardiac surgery for congenital heart disease. *Journal of Pediatric Pharmacology and Therapeutics.* July 2010

## Books

**Williams TE, Satiani B, Ellison EC.** *A Comparison Of Future Recruitment Needs In Urban And Rural Hospitals: The Rural Imperative.* *Surgery* (in press)

## Book Chapters

**Firstenberg MS** and **Rousseau CJ**. 2011. Post Myocardial Infarction Ventricular Septal Defect. In Thoracic Surgery / Book. Edited by Nazari S. Rijeka, Croatia: Intech Publishing. ISBN 979-953-307-630-9. (Formally Accepted)

**Galantowicz, M**, Cheatham JP, **Phillips AP**, Holzer R, Hill S, Olshove V. 2010. Hybrid Procedures for Congenital Heart Disease. In *Pediatric Cardiac Surgery 4th Edition*. Edited by Mauroudis C. Oxford, United Kingdom: Wiley-Blackwell (in press).

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**Higgins R**. and Evan R. 2011. The Organ Donor Dilemma: Assessing the Need for Organ Donors and Methods to Increase the Supply. In *The Multiorgan Donor: Selection and Management*. Edited by Higgins R, Sanchez J, Lorber M, Baldwin J. unstated: Blackwell Scientific Publications, Inc.

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**Sai-Sudhakar CB**. 2010. A Cardiac Surgeon's Perspective. In *Introductory Guide to Cardiac CT Imaging*. 1st ed. Columbus, OH: Lippincott, Williams & Wilkins. 81-90.

**Sai-Sudhakar CB**, Ravi Y, Hasan A, Vesco P. 2010. LVADS and Cardiac Transplantation. In *Baliga-Cardiology Review*. Edited by Ragavendra Baliga. Columbus, OH: McGraw-Hill. (Formally Accepted)

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**Sirak J**. 2011. Thoracoscopic Surgery for Atrial Fibrillation. In *Cardiothoracic Surgery Review*, Lippincott Williams & Wilkins, pp. 811-815. (Formally Accepted)

## International Presentations

**Firstenberg MS**. Seminar Presenter. 2011. ECMO Implementation: Expanding indications and the role of perfusionist. Presented at 7th International Congress of Update in Cardiology and Cardiovascular Surgery: Advanced Perfusion Course. Antalya, Turkey. March 26, 2011



**Firstenberg MS.** Seminar Presenter. 2011. ECMO indications: Decision making to implement, how to apply, how to prevent the complications, tips and tricks. Presented at 7th International Congress of Update in Cardiology and Cardiovascular Surgery: Advanced Perfusion Course. Antalya, Turkey. March 26, 2011

**Firstenberg MS.** Seminar Presenter. 2011. ECMO indications: Decision making to implement, how to apply, how to prevent the complications, tips and tricks. Presented at 7th International Congress of Update in Cardiology and Cardiovascular Surgery: Advanced Perfusion Course. Antalya, Turkey. March 26, 2011

**Firstenberg MS.** Presenter. 2011. Incidence and Outcomes of Emergent Cardiovascular Surgery Following Major Complications During Electrophysiology Procedures. Presented at 7th International Congress of Update in Cardiology and Cardiovascular Surgery. Antalya, Turkey. March 24, 2011 [Peer Reviewed]

**Galantowicz, M.** 8th Annual International Workshop on Interventional Pediatric Cardiology. Moderator. A Glance to the Future. Milan, Italy, March 31, 2011

**Galantowicz, M.** 8th Annual International Workshop on Interventional Pediatric Cardiology. Moderator. Ventricular Septal Defect. Milan, Italy, April 1, 2011

**Galantowicz, M.** 8th Annual International Workshop on Interventional Pediatric Cardiology. Speaker. Hypoplastic left heart syndrome; hybrid approach to HLHS: comprehensive stage II and fontan results. Milan, Italy, April 1, 2011

**Galantowicz, M.** 8th Annual International Workshop on Interventional Pediatric Cardiology. Moderator. Miscellanea. Milan, Italy, April 2, 2011

**Sirak, J.** The five-box thoracoscopic maze procedure, presentation. South China International Cardiology Symposium. Guangzhou, China, April 9, 2011.

## National Presentations

Asbahi M, **Firstenberg MS**, Papdimos TJ, Tripathi RS., Presenter. 2011. Extracorporeal cardiopulmonary resuscitation in a 33-year-old patient with acute on chronic heart transplant rejection. Presented at Midwestern Anesthesia Residents Conference (M.A.R.C.). Chicago, IL., USA. (April) [Peer Reviewed]

**Crestanello, JA.** Relationship between preoperative sodium and clinical outcomes after cardiac surgery. Presented at the American College of Cardiology 60th Annual Scientific Session and i2 Summit, April 2-5, 2011, in New Orleans, La., USA.

**Firstenberg MS.** Evolving and innovative applications of temporary extracorporeal circulatory life support. Minneapolis Heart Institute. Minneapolis, Mn.. October 4, 2010

**Firstenberg MS.** Publication strategy for advanced therapies in ECMO. Maquet Cardiovascular, LLC. April 28 & 29, 2011.

Gomez A, Preston T, Olshove V, Chisolm J, **Phillips A**, R Holzer. Transhepatic catheterization: Is ECMO support an absolute contraindication? The 27th CNMC Symposium: ECMO & the Advanced Therapies for Respiratory Failure. Keystone, Co., February 20-24, 2011

**Higgins RSD**. Presenter. 2011. Patient and lesion management. American College of Cardiology Scientific Session. New Orleans, La., April 3-5, 2011

**Lee D**. Effect of hyponatremia in isolated rat hearts. Experimental Biology Washington DC, April 9-13 2011

**Phillips A**. Ductal stents: Surgical implications. How to Sessions: Stenting the patent ductus arteriosus. AHA Scientific Sessions 2010, Chicago, IL, November 17, 2010

**Phillips A**, Gomez D, Preston T, Schwartz R, McKee C, Nicol K, Olshove V. Developing a comprehensive bleeding protocol for cardiac ECMO patients: Reduces bleeding and neurological events. The 27th CNMC Symposium: ECMO & the Advanced Therapies for Respiratory Failure. Keystone, Co., February 20-24, 2011

**Phillips A**. Pediatric CTICU decreases significant events. Institute for Healthcare Improvement 22nd Annual National Forum on Quality Improvement in Health Care. Orlando, FL., December 5-8, 2010

**Phillips A**. Event monitoring system for CT surgery. Institute for Healthcare Improvement 22nd Annual National Forum on Quality Improvement in Health Care. Orlando, FL., December 5-8, 2010

Preston, TJ, Gomez D, Olshove VF, Duffy VL, Neal MS, Nicol KK, Chicoine LG, **McConnell P**, **Phillips A**. Inlet pressure: Moving target or set it and forget it for all patients? The 27th CNMC Symposium: ECMO & the Advanced Therapies for Respiratory Failure. Keystone, Co., February 20-24, 2011

Preston, TJ, Gomez D, Olshove VF, Duffy VL, Neal MS, Nicol KK, **Phillips A**, Chicoine LG. Zero balance ultrafiltration during ECMO removes circulating cytokines. The 27th CNMC Symposium: ECMO & the Advanced Therapies for Respiratory Failure. Keystone, Co., February 20-24, 2011

**Quarrie R**. The paradoxical effect of ischemia reperfusion on mitochondria membrane potential and reactive oxygen species production. 96th Annual Meeting American College of Surgeons Washington DC, October 5, 2010

**Quarrie R**. Increased mitochondrial sensitivity to proton leak is responsible for decreased reactive oxygen species production in ischemic preconditioning. Academic Surgical Congress Huntington Beach Ca., February 2011

**Quarrie R**. Mitochondria uncoupling does not decrease reactive oxygen species production after ischemia reperfusion. Society of Black Academic Surgeons Scientific Symposium Boston, Ma., April 30, 2011

**Quarrie R**. Mitochondrial uncoupling and reactive oxygen species formation in cardiac ischemia-reperfusion. Annual Meeting of The International Society for Heart Research-North American Section. Philadelphia, Pa., May 22-25, 2011

**Sirak J.** The five-box thoracoscopic maze procedure: Key techniques. Presentation to the Society of Thoracic Surgeons Meeting, San Diego, Ca., February 2, 2011

**Williams TE.** A comparison of future recruitment needs in urban and rural hospitals: The rural imperative. Central Surgical Association. Detroit, Mi., March 17, 2011

## Miscellaneous Presentations

**Crestanello JA.** Minimally invasive and robotic cardiac surgery. Division of Cardiovascular Medicine Grand Rounds. The Ohio State University. Columbus Oh., September 24, 2010

**Crestanello JA.** The Ohio Chapter of the Latino Medical Student Association. Columbus, Oh., August 28, 2010

**Crestanello JA.** Percutaneous Valves Division of Cardiovascular Medicine Grand Rounds. The Ohio State University. Columbus, Oh., January 14, 2011

**Crestanello JA.** Robotics in cardiac surgery. What's new in robotic surgery across specialties? The Ohio State University. Columbus, Oh., February 25, 2011

**Crestanello JA.** Percutaneous aortic valve. 2011 Holzer Cardiovascular Symposium. Holzer Medical Center. Gallipolis Oh., March 5, 2011.

**Crestanello JA.** Percutaneous aortic valve. Department of Surgery Grand Rounds. The Ohio State University. Columbus Oh., May 12, 2011.

**Firstenberg MS.** Extra-corporeal Membrane Oxygation and Temporary Circulatory Support for Acute Cardiopulmonary Failure from Sepsis. Department of Post-Graduate Medical Education, Licking Memorial Hospital.. Newark, Oh., August 23, 2010

**Galantowicz M.** Columbus Rotary. Invited Speaker. Congenital Heart Surgery; Where are we today? Columbus, Oh., October 18, 2010

**Lee DS.** Mitochondrial Depolarization is Not Responsible for Cardioprotection During Ischemic Preconditioning. Poster Presentation, 10th Annual DHLRI Research Day, Columbus, Oh., October 12, 2010.

**Phillips A.** VSD and Stents - Endoscopic Guidance in the OR. ISHAC 2010. Columbus, Oh., September 1, 2010

**Quarrie R.** Reactive Oxygen Species and Cardiac Ischemia-Reperfusion Injury Department of Surgery Grand Rounds. The Ohio State University. Columbus Oh., April 21, 2011.

**Quarrie R.** Ischemic Preconditioning Increases Mitochondrial Sensitivity to Proton Leak Leading to Decreased Reactive Oxygen Species Production. Poster Presentation, 10th Annual DHLRI Research Day, Columbus, Oh., October 12, 2010

**Quarrie R.** Mitochondria uncoupling does not decrease reactive oxygen species production after ischemia reperfusion. 22nd Annual Presidential Symposium of the Columbus Surgical Society. Mt. Carmel Medical Center. Columbus, Oh., March 12, 2011

**Quarrie R.** Proton Leak Does Not Decrease Mitochondrial Reactive Oxygen Species Production After Ischemia-Reperfusion 10th Annual OSUMC Research Day. The Ohio State University Medical Center. Columbus, Oh., April 17, 2011

**Quarrie R.** Mitochondrial Uncoupling and Reactive Oxygen Species Production in Cardiac Ischemia-Reperfusion.” Fourth Annual Translational to Clinical (T2C) Comprehensive Wound Care Conference, Columbus, Oh., April 8-9, 2011

**Sai-Sudhakar CB.** Presenter. 2011. Mechanical Circulatory Support for Congestive Heart Failure - When, Who and Where to refer. Presented at Association of Indian Physicians of Ohio (AIPO), to cardiologists, Internists and Hospitalists. Cleveland, Oh., May 21, 2011

**Sai-Sudhakar CB.** Presenter. 2010 - 2011. Mechanical Circulatory Support for Congestive Heart Failure - When, Where and Who to refer. Presented at Association of Indian Physicians of Ohio - Regional Meeting, to Cardiologists, Internists, Hospitalists. Cleveland, Oh., May 21, 2011

**Williams TE,** Satiani B, Ellison EC, Gabbe S, Souba W. The Impending Surgical Threat To The Rural Hospitals. Poster Presentation, Association of American Medical Colleges, Alexandria, Va., May 6, 2010

## Distinguished Visiting Professors

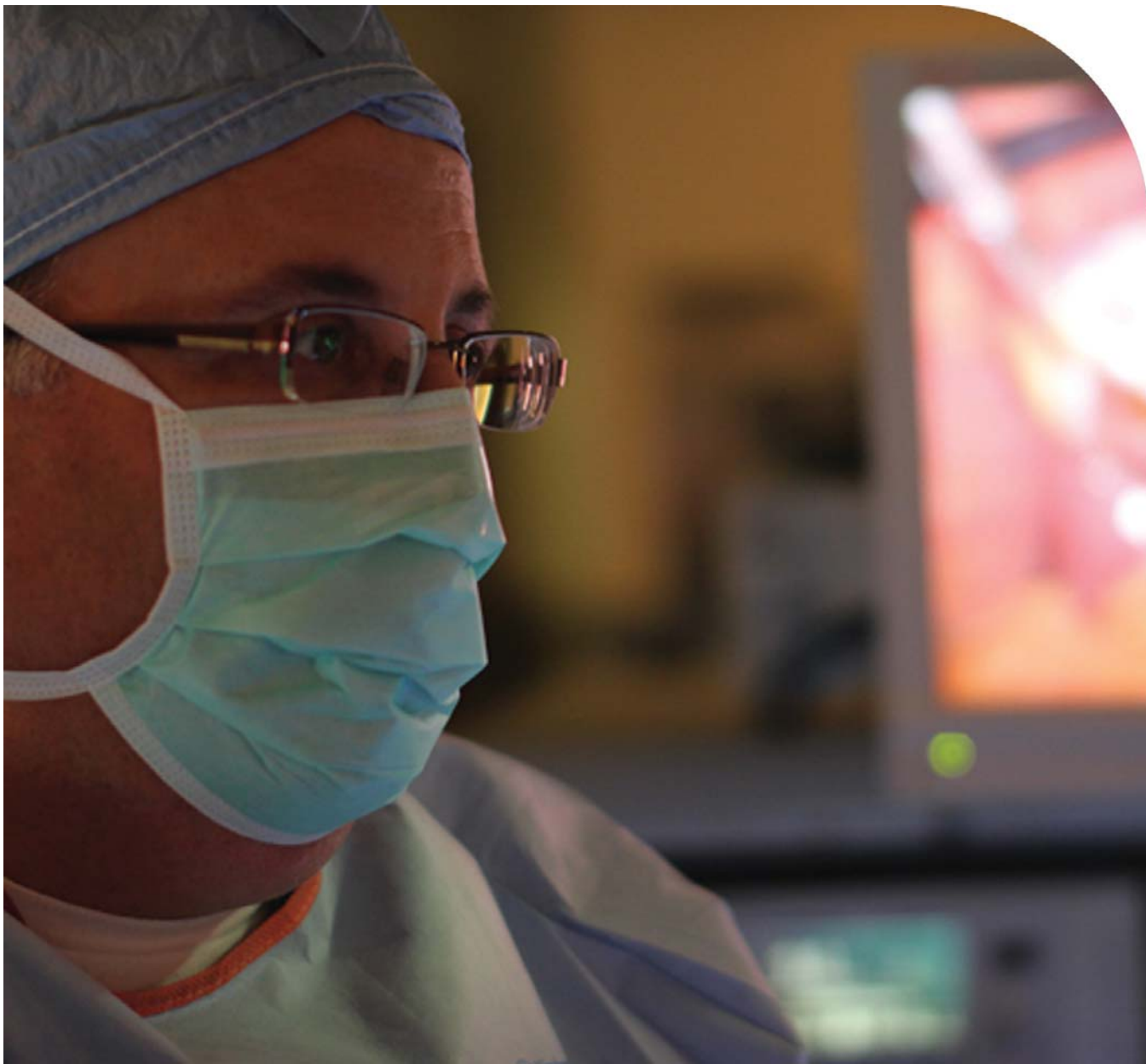
### **Irving Kron, MD**

President of the American Association for Thoracic Surgery, Chairman of the Department of Surgery and the S. Hurt Watts Professor of Surgery, University of Virginia, Charlottesville, Va., “The Present and Future of Cardiothoracic Surgery”, June 16, 2011.

### **Ann Marie Schmidt, MD**

Director of the Diabetes Research Program, first Iven Young Professor of Endocrinology, New York University Langone Medical Center, New York, NY, “RAGE, Signal Transduction and the Complications of Diabetes”, June 16, 2011.

## Division of Critical Care, Trauma and Burn



# Critical Care, Trauma, and Burn



**Steven M. Steinberg, MD**

Chief, Division of Critical Care, Trauma, and Burn

**T**he Division of Critical Care, Trauma, and Burn was formed in March, 2006 with the charge of enhancing the Department of Surgery's programs in surgical critical care, trauma, burns and emergency general surgery and developing an acute care surgery program. This last year has seen continued growth in both faculty and also clinical volume and scholarly activity.

This year, the division recruited one new faculty member: Daniel S. Eiferman, MD. Dr. Eiferman, assistant professor of surgery, joined our faculty in July 2010. He completed his surgical critical care fellowship here at The Ohio State University Medical Center 2009-2010. He has had a busy first year with many accomplishments. He received an Outstanding Contribution Award from the Department of Emergency Medicine at The Ohio State University Medical Center; he became assistant program director of the surgical critical care fellowship; he became an ATLS course director; he co-developed MDT3 (Multidisciplinary Team Training for Trauma) to help improve communication and performance during Level I traumas; he continued research and gave surgical grand rounds on "Direct Mechanical Ventricular Actuation."

As a division, there have been a number of notable accomplishments in the past year:

- Our surgical critical care fellowship had three of the four spots filled this past year. Recent graduate, Dr. Vanessa Olcese will be staying here at Ohio State and continuing her training as a neurocritical care fellow, Dr. Angelina Postoev will be relocating with her husband (also a general surgeon) to Atlanta to begin a private general surgical practice, and Dr. Sarah Russell will be staying here at Ohio State and joining our anesthesiology and critical care faculty.

- The Critical Care Signature Program, of which our division is a key member, continues to progress. Dr. Steinberg continues to act as co-chair of the system-wide critical care quality committee, which meets monthly.
- The Trauma Program, under the leadership of Dr. Steven Steinberg, continues to show an increase in activity with 2473 trauma admissions in 2010, reflecting an 11 percent increase over the previous year. Over the past five years there has been a 24 percent increase in the growth of the program. Of the patients admitted 21 percent had a moderate to severe Injury Severity Score and 43 percent of the patients required at least one operative procedure. Of patients that arrive by EMS, 40 percent of the patients transferred in from outside hospitals and 40 percent of the patients came directly from the scene of the event.
- The division also developed a number of new patient care guidelines and protocols including a massive transfusion protocol and a cervical spine clearance protocol.

Dr. Paul R. Beery II, assistant professor of clinical surgery, is now in his second year. He is a member of the Western Trauma Association and the Eastern Association for the Surgery of Trauma. His interests include surgical education, trauma, and critical care. Dr. Beery passed his Neurocritical Care Certification exam this past year. He is actively involved in community outreach and gave several presentations. Dr. Beery is active in the care of trauma and critically ill patients.

Dr. Charles H. Cook, associate professor of surgery, continued his research in cytomegalovirus (CMV) infections and bacterial sepsis during critical illness. His laboratory continues to focus on how cytomegalovirus reactivation causes lung injury in immunocompetent patients. In addition to his research pursuits, Dr. Cook continues to be active in the care of injured and critically ill patients and is medical director of the Surgical Intensive Care Unit. Dr. Cook and his manuscript, *Tree stands, not guns, are the Midwestern hunter's most dangerous weapon* were featured in the "Nation" section of the November 4<sup>th</sup>, 2010 issue of USA Today. As a result of this news story, Dr. Cook was subsequently quoted and the news article was recounted across the nation by more than 25 sports magazines, on-line journals, and newspapers including the Los Angeles Times. Dr. Cook was also interviewed regarding the conclusions of his study by several radio stations. He received a Division of Wildlife Award from the Ohio Department of Natural Resources, Columbus, Ohio.

Dr. David E. Lindsey, assistant professor of clinical surgery, is now in his fourth year. Dr. Lindsey attends the Ross Heart Surgical ICU one-fourth of his clinical time. He is an active participant on the cardiovascular mortality reduction project at the Medical Center. This past year he has been active as an ATLS Trauma Course Director along with the Committee on Trauma for the American College of Surgeons in Ohio. He was selected and appointed to the Surgical Education Research Project for 2011-2012 for the Association of Surgical Educators. The College of Medicine awarded Dr. Lindsey the "Excellence in Teaching" award for the Class of 2011 at the graduation awards ceremony. At the surgical house staff graduation ceremony Dr. Lindsey was awarded the Michael J. Walker, MD Faculty Teaching Award by the medical students and the Department of Surgery Faculty Teaching Award by the surgical residents and fellows. Dr. Lindsey is active in the care of injured and critically ill patients.



Dr. Sidney F. Miller, professor of surgery, is the director of the OSU Burn Center. He is an authority on burn care and serves in leadership roles on local and national levels. He serves on the board of trustees of the American Burn Association and is the immediate past president of the organization. Dr. Miller represents the American Burn Association to the joint disaster planning committee of the American College of Surgeons and the Department of Homeland Security. He is an editorial board member of the "Journal of Burns" and "Journal of Burn Care and Rehabilitation" and reviews regularly for the *Annals of Surgery*, *Journal of Trauma* and *Journal for Academic Surgery*. Dr. Miller currently serves on the Ohio Department of Public Safety EMS Board's Trauma Committee and the Ohio Department of Homeland Security Interagency Response Group. Dr. Miller served as a member of the American College of Surgeons' Committee on Trauma (COT) for 18 years as Ohio State Committee on Trauma vice-chair and chair and as Region Chief for Region V of the COT. He is a member of the external review panel for the Department of Defense Combat Casualty Care Program. This program is developing new and improved methods of evaluating and treating our injured military personnel and the work done by the Combat Casualty Care Program will be translatable to the civilian community. He is a past governor of the American College of Surgeons and a past president of the Ohio Chapter of the American College of Surgeons. Under the direction of Dr. Miller, the burn program has been established at Ohio State University. In addition to patient care the program has established an Annual Burn Survivor Family Camp and implemented the Survivors Offering Assistance in Recovery (SOAR) program which provides peer support to patients in the OSU Burn Center.

Dr. Brian S. Porshinsky, assistant professor of surgery and Assistant Director of the OSU Burn Center, had a busy first year. He transferred his faculty appointment to the department of Plastic Surgery in April 2011 and continues to be active in burn care as well as building a plastic surgery practice. His interests include acute burn care, fluid resuscitation, and reconstructive burn surgery.

Dr. Stanislaw P. Stawicki, assistant professor of surgery, is in his third year. He has authored or co-authored over 130 publications including chapters, reviews, and original scientific contributions. He is one of the co-founders of OPUS 12 Foundation, an elite group of medical researchers who engage in multi-disciplinary collaborative efforts and multi-center clinical studies. In addition to being active nationally and internationally, Dr. Stawicki participates in important Medical Center committees and panels, including patient safety/sentinel event reviews, Perioperative Quality Management Committee, and was appointed to Co-Chair the Formulary Committee for 2011-2012. Dr. Stawicki is actively involved in didactics, including teaching ATLS courses, lectures and presentations for surgical critical care fellows, residents, and students, as well as numerous small group discussions for both surgical critical care and trauma/emergency surgery rotations. He is a mentor to several young research investigators, both locally and nationally. Dr. Stawicki was named Director of Research for the Division of Critical Care, Trauma, and Burn – a role that includes supervision of clinical research efforts by the division and direct oversight of divisional research infrastructure. In addition to being named to the Editorial Boards of the *World Journal of Orthopaedics*, the *World Journal of Critical Care Medicine*, and a Section Editor (Critical Sonology Science) for the *Journal of Emergencies, Trauma, and Shock*. Dr. Stawicki also serves as the Editor-In-Chief of the *International Journal of Critical Illness and Injury Science*.



Dr. Steven M. Steinberg, professor of surgery, is the director of the Division of Critical Care, Trauma and Burn and is a member of the board and the clinical trauma committee of Central Ohio Trauma Systems. He also is a member of the State of Ohio Emergency Medical Services Board. He serves as the chair of University Hospital Operating Room Committee and is a member of the Health System Operating Room Coordinating Committee, Leadership Council for Clinical Quality and Safety, and the Medical Staff Officers Group for The Ohio State University Medical Center. He is an editorial board member of *Selected Readings in General Surgery*. He has been selected as the recipient of the American College of Surgeons/American Surgical Association Health Policy Scholarship for the year 2010. Dr. Steinberg is listed as one of the Best Doctors in America by the *U.S. News and World Report*. He is the first recipient of the STAR Award, (OSU Stress, Trauma, and Resilience Program), at the Wex-STAR benefit at The Ohio State University Medical Center. Dr. Steinberg is active in the implementation of the OSU Surgical Go Team, Emergency Preparedness, Community Outreach, Educational and Process Development, Collaboration between OSUMC, Grant, and Columbus Division of Fire. He continues to be actively involved in surgical education and critical care. Dr. Steinberg remains active in the care of injured and critically ill patients.

Dr. Joanne Trgovcich, research assistant professor, joined our faculty in April 2011, coming from a pathology faculty appointment. She continues her research as a NIH co-investigator on viral evasion of NK cells. This award is for \$344,042.00 and is for the period September 18, 2009 to August 31, 2013. The goal of this study is to investigate the role of murine cytomegalovirus gene products in regulation of NK cells in acute and latent infections. She also assists with ongoing work in the laboratory of Dr. Charles Cook to study murine cytomegalovirus reactivation. She is a review editor for "Frontiers in Microbial Immunology". She is a member of the American Society for Microbiology, American Association for the Advancement of Science, and American Society for Biochemistry and Molecular Biology. She is a Professor, Faculty of Medicine, at the University of Rijeka Medical School, Croatia. Dr. Trgovcich has many peer-reviewed publications.

Dr. Melissa L. Whitmill, assistant professor of clinical surgery, joined us in August 2008. She has been Medical Director of Nutrition Services since 2009. She is an active member of numerous trauma and critical care societies. She became a Fellow of the American College of Surgeons (FACS) in 2010. She passed the Neurocritical Care certification examination in 2010 and has been active with the Neurocritical Care service here at OSUMC. She has served on several OSUMC committees: Ethics Committee and the Sentinel Event Review Committee. She is also an associate member of the ACS Ohio Committee on Trauma. Dr. Whitmill is very interested in education and has taught in several ATLS courses this year, in addition to coordinating the resident educational programs for trauma/emergency general surgery and the Surgical Critical Care fellowship. She recently completed the Advanced Surgical Skills Exposure in Trauma (ASSET) course. Dr. Whitmill has given several presentations in central Ohio. She has also co-authored several publications in the last year. Dr. Whitmill was awarded the Shining Star Award in Recognition of Faculty Mentorship by the graduating medical students through the Office of Diversity and Inclusion of The Ohio State University. Dr. Whitmill will be leaving our division at the end of June 2011 to accept the position of Assistant Professor of Surgery, Surgical Critical Care Fellowship Program Director and Assistant General Surgery Residency Program Director with Wright State University Department of Surgery and Medical Director of the Surgical Intensive Care Unit at Miami Valley Hospital in Dayton, Ohio.

Rebecca Coffey, RN, MSN, CNP, Burn Nurse Practitioner, has been with our team since 2006. She completed her undergraduate and graduate degrees at the University of Cincinnati earning her MSN in Burn and Trauma. She attended The Ohio State University obtaining her Adult Nurse Practitioner certification and is currently working on her Doctorate of Nursing degree. Rebecca is on the Nursing Research Executive Council. She is National Faculty for the Advanced Burn Life Support Class and she has been appointed to the American Burn Association's Prevention Committee. Her primary interests are burn care, burn outreach, education and prevention, pediatric burn care, and wound care. In the past year she has provided outreach education to multiple EMS, referral hospitals and emergency departments.

Miranda M. Jackson, RN, BSN, MSN, ACNP-BC, Trauma Nurse Practitioner, joined our team in July of 2010. She completed her undergraduate degree at Wheeling Jesuit University in Wheeling, WV. She attended the University of Pittsburgh in Pittsburgh, PA for her graduate program for an Acute Care Nurse Practitioner with a specialty in Trauma and Emergency Preparedness. Miranda is highly trained in critical care medicine. She spends a lot of time involved in disaster management for hospitals as well as the community. She has obtained specialty training and certifications through numerous agencies, which include the Federal Management Agency (FEMA), National Incident Management System (NIMS), and the U.S. Department of Energy. Her special areas of interest include; Critical Care Medicine, Trauma and Emergency Medicine, Emergency Surgery, Bioterrorism/Disaster Preparedness training. Miranda is also certified as a Fundamentals of Critical Care Support Provider. Miranda was highly recognized by Dr. Steven Gabbe, Dr. Gordon Gee, and many of her colleagues at The Ohio State University Medical Center for her service to the community in a trauma rescue, which she assisted in providing emergent medical treatment to an accident victim in March of 2011. Miranda intends to further her education and obtain her Doctorate of Nursing degree.

Lisa K. Koser, RN, MS, MSN, ACNP-BC, PNP-AC, Trauma Nurse Practitioner, joined our team in March of 2011. She completed her initial education as a nurse at Mount Carmel School of Nursing in Columbus, OH and earned her Baccalaureate degree at Franklin University, Columbus, OH. Lisa gained valuable experience while working in pediatric and adult emergency departments and ICU's and as a critical care transport nurse and nurse practitioner. She attended Excelsior College earning her MSN in Administration and Nursing Informatics before seeking her MS with a focus of Acute Care Nurse Practitioner from Wright State University, obtaining a subspecialty in trauma and cardiovascular care. She has also completed a post-masters certificate at The Ohio State University obtaining her Pediatric Acute Care Nurse Practitioner and working on completing her Doctorate of Nursing Practice. Lisa maintains numerous certifications including, FCCS Provider, CEN, CFRN, CCRN, C-NPT, EMT-P, NIMS and EMS Instructor. Her primary interest lies in the initial stabilization and care of the critically ill and injured patients in the pre-hospital, hospital and transport setting. Lisa is a reviewer and contributor for several peer-reviewed advanced practice and nursing journals. She is a frequent presenter at local and national conferences.

Dr. Vanessa Olcese, Dr. Angelina Postoev and Dr. Sarah Russell completed their surgical critical care fellowships.

## Faculty

### **Steven M. Steinberg, MD**

Professor of Surgery; Vice Chairman for Clinical Affairs, Department of Surgery; Trauma Medical Director; Chief, Division of Critical Care, Trauma, and Burn

**BSc:** The Ohio State University, Columbus, Oh., 1975

**MD:** The Ohio State University, Columbus, Oh., 1978

**Specialty Training:** The Ohio State University, Columbus, Oh.

**Appointment:** 1999

**Specialty Interests:** General surgery

**Research Interests:** Alterations in splanchnic microcirculation in shock; hemodynamic assessment in critical illness; adequacy of hemodynamic resuscitation in shock; sepsis and organ failure; trauma



*Steinberg*

### **Paul R. Beery, II, MD**

Assistant Professor of Clinical Surgery

**BME:** The Ohio State University, Columbus, Oh., 1992

**MD:** The Ohio State University, Columbus, Oh., 1999

**MS:** The Ohio State University, Columbus, Oh., 2005

**Specialty Training:** The Ohio State University, Columbus, Oh.

**Appointment:** 2009

**Specialty Interests:** Trauma, surgical critical care



*Beery*

### **Charles H. Cook, MD**

Associate Professor of Surgery; Medical Director, Surgical Critical Care

**BS:** Pennsylvania State University, University Park, Pa., 1987

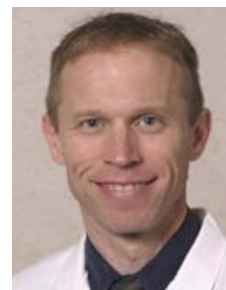
**MD:** The Ohio State University, Columbus, Oh., 1991

**Specialty Training:** The Ohio State University, Columbus, Oh.

**Appointment:** 1997

**Specialty Interests:** Critical care, laparoscopy

**Research Interests:** Surgical outcomes, surgical infectious disease



*Cook*

**Daniel S. Eiferman, MD**

Assistant Professor of Surgery; Assistant Program Director of Surgical Critical Care Fellowship

**BA:** Northwestern University, Evanston, Il., 1999

**MD:** University of Kentucky, Lexington, Ky., 2003

**Specialty Training:** Residency in general surgery, Rush University Medical Center, Chicago, Il., 2009; research fellowship in cardiac surgery, Emory University, Atlanta, Ga., 2006; thoracic fellowship, Emory University, Atlanta, Ga., 2009; fellowship in surgical critical care, The Ohio State University, 2010

**Appointment:** 2010

**Specialty Interests:** Trauma, acute care surgery, surgical critical care

**Research Interests:** Critical care outcomes



*Eiferman*

**David E. Lindsey, MD**

Assistant Professor of Clinical Surgery

**BS:** The Ohio State University, Columbus, Oh., 1972

**MD:** The Ohio State University, Columbus, Oh., 1976

**Specialty Training:** Stanford University Hospital, Stanford, Ca.; University of California-Davis, Sacramento, Ca.

**Appointment:** 2007

**Specialty Interests:** Critical care, cardiovascular critical care, trauma



*Lindsey*

**Sidney F. Miller, MD**

Professor of Surgery; Director, Burn Center

**BA:** Indiana University, Bloomington, In., 1965

**MD:** Indiana University School of Medicine, Indianapolis, In., 1968

**Specialty Training:** Miami Valley Hospital, Dayton, Oh.

**Appointment:** 2006

**Specialty Interests:** Burns

**Research Interests:** Wound healing



*Miller*

**Brian S. Porshinsky, MD**

Assistant Professor of Surgery; Assistant Director, Burn Center

**BA:** The Ohio State University, Columbus, Oh., 1991

**MD:** Medical College of Toledo, Toledo, Oh., 1999

**Specialty Training:** Fellowship in surgical critical care, The Ohio State University, Columbus, Oh.; fellowship in burn surgery and critical care, New York-Presbyterian Hospital/Weill Cornell Medical Center, New York, NY; fellowship in plastic surgery, University of Illinois, Chicago, Il.

**Appointment:** 2009

**Specialty Interests:** Acute burn care, fluid resuscitation after burns

**Research Interests:** Advanced technology applications in clinical surgery



*Porshinsky*

**Stanislaw P. Stawicki, MD**

Assistant Professor of Surgery

**BA:** University of Louisville, Louisville, Ky., 1997

**MD:** University of Louisville, Louisville, Ky., 2001

**Specialty Training:** Residency in general surgery, St. Luke's Hospital and Health Network, Temple University Clinical Campus, Bethlehem, Pa.; fellowship in traumatology and surgical critical care, University of Pennsylvania, Philadelphia, Pa.

**Appointment:** 2008

**Specialty Interests:** Trauma, surgical critical care, emergency surgery

**Research Interests:** Geriatric trauma, role of comorbidities in trauma



*Stawicki*

**Joanne Trgovcich, PhD**

Research Assistant Professor

**BS:** Purdue University, West Lafayette, In., 1989

**PhD:** University of North Carolina, Chapel Hill, NC, 1996

**Specialty Training:** Post-doctoral research in microbiology and immunology, University of Rijeka, Croatia, 1998; post-doctoral research in pathology, molecular genetics, cellular biology, University of Chicago, Chicago, Il., 2001

**Appointment:** 2011

**Research Interests:** Molecular genetics, cellular biology, immunology



*Trgovcich*

**Melissa L. Whitmill, MD**

Assistant Professor of Clinical Surgery; Director, Nutritional Support Services

**BS:** Columbia Union College, Takoma Park, Md., 1995

**MD:** Wright State University, Dayton, Oh., 2001

**Specialty Training:** Residency in general surgery, Wright State University, Dayton, Oh.; fellowship in surgical critical care, Henry Ford Hospital, Detroit, Mi.

**Appointment:** 2008

**Specialty Interests:** Trauma, surgical critical care, emergency surgery



*Whitmill*

## Nurse Practitioners

**Rebecca A. Coffey, MSN, CNP**

**BSN:** University of Cincinnati, Cincinnati, Oh., 1978

**MSN:** University of Cincinnati, Cincinnati, Oh., 1982

**Specialty Training:** Nurse practitioner, The Ohio State University, Columbus, Oh., 1996

**Appointment:** 1990

**Specialty Interests:** Burn care, pediatric burn care, wound care



*Coffey*

**Miranda M. Jackson, MSN, ACNP-BC****BS:** Wheeling Jesuit University, Wheeling, WV**MSN:** University of Pittsburgh, Pittsburgh, Pa.**Specialty Training:** Federal Emergency Management Agency (FEMA) , National Incident Management Systems (NIMS) and Fundamentals of Critical Care Support (FCCS) certified**Appointment:** 2010**Specialty Interests:** Acute care, trauma and emergency preparedness, bioterrorism and disaster management training*Jackson***Lisa K. Koser, MSN, ACNP-BC****BSN:** Mount Carmel School of Nursing/Franklin University, Columbus, Oh.**MSN:** Excelsior College, Albany, NY**MS:** Wright State University, Dayton, Oh.**Specialty Training:** ACNP subspecialty; trauma and cardiac, acute care pediatric nurse practitioner**Appointment:** 2011**Specialty Interests:** Critical care transport, pre-hospital trauma management, complex medical and surgical critical care, neonatal and pediatric critical care*Koser*

## New Full-Time Faculty Appointments

**Daniel S. Eiferman, MD**

Assistant Professor of Surgery

July 2010

**Joanne Trgovcich, PhD**

Research Assistant Professor

April 2011

## Faculty Departures

**Melissa L. Whitmill, MD**

Assistant Professor of Clinical Surgery

Date of resignation: June 2011

Current appointment: Miami Valley Hospital, Dayton, Ohio; Wright State University, Department of Surgery, Dayton, Ohio



## Resident Staff

**Vanessa A. M. Olcese, MD**

Surgical Critical Care Fellow

**BS:** University of Maryland, Baltimore, Md., 1998

**MD:** Georgetown University School of Medicine, Washington, DC, 2004

**Angelina Postoev, MD**

Surgical Critical Care Fellow

**BS:** The Ohio State University, Columbus, Oh., 1999

**MD:** Ross University School of Medicine, Roseau, Commonwealth of Dominica, 2004

**Sarah Beth Russell, MD**

Surgical Critical Care Fellow

**BA:** University of Notre Dame, Notre Dame, In., 2002

**MD:** University of Oklahoma College of Medicine, Tulsa, Oklahoma, 2006

## Mission

The mission of the Division of Critical Care, Trauma, and Burn is to improve people's lives through innovations in research, education, and patient care in the areas of surgical critical care, trauma, burns, and emergency surgery.

## Research Programs

- PCR based Clostridium difficile toxin testing evaluation
- STOP-IT – A multi-center study of optimal length of antibiotic treatment for abdominal infections
- Comparison of the safety and efficacy of intravenous CXA-101/tazobactam and Metronidazole with that of Meropenem in complicated intraabdominal infections
- Comparison of the safety and efficacy of intravenous CXA-201 and intravenous Levofloxacin in complicated urinary tract infections, including pyelonephritis
- Intensivist bedside ultrasonography (INBU) – A prospective investigation of sonography in clinical assessment of the critically ill and injured patients
- A randomized clinical trial of restrictive versus traditional blood transfusion practice in burn patients
- Transfusion-related acute lung injury (TRALI) and West Penn resuscitation utilization in burn patients
- Use of fresh frozen plasma and the West Penn formula versus crystalloid resuscitation and the Parkland formula for resuscitation of major burns
- The effects of anticoagulants on elderly trauma patients with head injuries
- Incidence of and risks associated with polypharmacy in geriatric trauma patients
- Geriatric trauma risk assessment (GETRA) system: A post-trauma resuscitation area disposition tool

- Effects of beta blockers on outcomes in geriatric trauma patients
- An evaluation of how end-of-life decisions are made and documented
- Cytomegalovirus (CMV) infections and bacterial sepsis
- Cytomegalovirus infection in burn injury
- Glycemic control in critically ill surgical and burn patients
- A multi-center study of the efficacy of SOAR: A peer support program for burn survivors
- Increasing nurses knowledge and ability to teach about burn prevention: A multi-center study
- Electrical burns and the development of post traumatic stress disorder and associated psychological sequelae: A retrospective study
- Brain markers and advanced MRI in the evaluation and treatment of electrical injured patients and its implementation for diagnosing PTSD
- Using computer based learning as a method of establishing competency in the care of high risk, low volume nursing care
- Recognition and treatment of alcohol withdrawal syndrome in burn patients: Impact on nursing care and patient outcomes using a new clinical guideline
- Disseminating organizational screening and brief interventional services (DO-SBIS): Screening of alcohol usage and brief intervention in the acute care hospital
- Prospective randomized placebo trial of pregabalin in the control of neuropathic pain in burn patients
- The implementation of a burn prevention education module for patients with autism
- The incidence and implication of elevated Hemoglobin (Hgb)A1C in burn patients
- Foreign body ingestions in predominately prisoner population: A retrospective study
- Seprafilm in open abdomens: A prospective evaluation of wound and adhesion characteristics in trauma damage control
- The use of dynamic f/Vt ratio in identification of failures of ventilatory liberation in critically ill surgical patients
- Application of financial analysis techniques to urine output and glycemic measurements in critically ill burn patients
- The role of murine cytomegalovirus (CMV) gene products in regulation of NK cells in acute and latent CMV infections
- Wound colonization: Evaluation of soap versus chlorhexidine use
- Hemodynamic profiling of surgical ICU patients
- Comparison of two methods of hemodynamic and volume status assessment in critically ill surgical patients
- Intraosseous access use at burn centers
- Administration of enteral nutrition after percutaneous endoscopic gastrostomy in the surgical intensive care unit: A study of timing and temporal feeding patterns on patient outcomes
- A randomized, double-blind, placebo-controlled, parallel-group study of the safety and efficacy of REGN475 in patients with pain resulting from thermal injury
- A randomized, open-label, efficacy and safety study of Octaplex and fresh frozen plasma (FFP) in patients under vitamin K antagonist therapy with the need for urgent surgery or invasive procedures



## Accomplishments in Research

- Faculty members in the division published 40 scholarly articles and abstracts.
- Division members had 3 podium presentations at national meetings and 10 poster presentations at international and national meetings by division faculty and staff.
- The division broadened its clinical research meetings to include representatives from Anesthesiology, Dietary, Pain and Palliative Medicine, Nursing, and Pharmacy.

## Active Research Grants

- Anstadt MP, **Eiferman DS**, Perez-Tamayo RA. New heart failure treatment capability for remote environments; Wright State University/USA Medical Research and Material Command. May 2008 - May 2013, \$849,718.
- Justiniano C, **Stawicki SP** (faculty mentor). Comorbidity-polypharmacy score: A triage tool for determining post-emergency department destination for older trauma patients; Bennett Research Scholarship, \$3,000.
- **Stawicki SP**. PULSION PiCCO2 evaluation; equipment and monitoring supplies, \$60,000.
- **Stawicki SP, Cook CH**. A multicenter, double-blind, randomized, phase 2 study to compare the safety and efficacy of intravenous CXA-101/tazobactam and Metronidazole with that of Meropenem in complicated intraabdominal infections; \$16,085.
- **Steinberg SM**. The disseminating organizational screening and brief intervention services (DO-SBIS) at trauma centers study; \$12,000.
- **Trgovcich J**. NIH co-investigator on viral evasion of NK cells. The goal of this study is to investigate the role of murine cytomegalovirus gene products in regulation of NK cells in acute and latent infections; September 2009 - August 2013, \$344,042.

## Clinical Programs

- Surgical critical care, trauma, burn, and emergency surgery.

## Accomplishments in Clinical Care

- Dr. Paul Beery, II and Dr. Melissa Whitmill passed the Neurocritical Care certification examination in 2010 and have been active with the Neurocritical Care service here at The Ohio State University Medical Center.
- The Level I verification follows a comprehensive review of the Medical Center's practices and policies related to providing optimal care for critically ill and injured patients. The review, conducted by trauma surgeons associated with the American College of Surgeons, takes place every three years. OSU Medical Center has held a Level I designation for 19 years and was one of the first hospitals to receive the designation after the verification program started in 1987.
- A Level I trauma center must possess advanced diagnostic and treatment capabilities, including cardiopulmonary bypass, nuclear scanning and neuroradiology. The center also should have a leadership role in education, research and patient care.
- The OSU Medical Center is widely recognized for its expertise in the care of trauma patients and treats patients from throughout Ohio. It also has the only emergency department in central Ohio with hyperbaric medicine facilities and on-site physicians in more than 40 medical specialties.
- The division assumed the care of the majority of emergency general surgery patients.
- The division developed a number of new patient care guidelines and protocols including a massive transfusion protocol and a cervical spine clearance protocol.

## Clinical Statistics

OR Procedures	4,289
Outpatient Visits	2,817
Admissions	1,787
Patient Days	11,219
Average Length of Stay (Days)	4.86

## Education Programs

- Fully-accredited fellowship in surgical critical care.
- The division received approval to start a fellowship in acute care surgery beginning July 1, 2011.

## Accomplishments in Education

- Completion of the surgical critical care fellowships by Dr. Vanessa Olcese, Dr. Angelina Postoev and Dr. Sarah Beth Russell.
- Dr. Eiferman received an Outstanding Contribution Award from the Department of Emergency Medicine, The Ohio State University Medical Center.
- Dr. Eiferman co-developed MDT3 (Multidisciplinary Team Training for Trauma) to help improve communication and performance during level I traumas.
- The College of Medicine awarded Dr. Lindsey the “Excellence in Teaching” award for the Class of 2011 at the graduation awards ceremony.
- Dr. Lindsey was awarded the Michael J. Walker, MD Faculty Teaching Award at the surgical house staff graduation ceremony by the medical students and the Department of Surgery Faculty Teaching Award by the surgical residents and fellows.
- Dr. Steinberg was the first recipient of the STAR Award, (OSU Stress, Trauma, and Resilience Program), presented at the Wex-STAR benefit at The Ohio State University Medical Center.
- Dr. Paul Beery, II and Dr. Melissa Whitmill passed the Neurocritical Care certification examination.

## Community Outreach Programs

- Trauma injury prevention program
- Burn outreach program
- Trauma outreach program
- Local Heroes Day
- Trauma Go Team

## Accomplishments in Community Outreach

- The Trauma Go Team is a collaboration between OSUMC, Grant, and Columbus Division of Fire to provide an on-site trauma surgeon in the event that a trauma patient cannot be safely extricated from a scene without surgical intervention.

- The 4th Annual OSU Burn Center Family Burn Camp, under the direction of Dr. Sidney Miller, was held on August 13-15, 2010 at Camp Joy in Clarksville, Ohio. This camp brings together former burn patients and their families for a weekend of camping and team building.
- The ThinkFirst Program grew immensely this year and additional speakers were recruited. Central Ohio ThinkFirst Chapter presented 160 programs between 7/1/10-6/30/11, reaching 9,689 people. We continued these collaborative partnerships and served on the many community-wide committees including:
  - 4H CarTeens
  - Columbus Police Department
  - Franklin County 4H Youth Development
  - Franklin County Juvenile Court
  - Franklin County Safe Communities
  - Franklin County Sheriff's Department
  - Franklin County Teen Safety Council
  - MADD Franklin County
  - SafeKids Central Ohio
  - SafeCommunities
  - The Ohio State University Extension Office
  - The Columbus Health Department
  - Worthington Police
  - Voices In Prevention (VIP's)
  - Mayor's Court: Upper Arlington, Dublin, and New Albany Juvenile Courts
  - Various K-12 schools and OSU
  - Central Ohio Trauma System (COTS)
  - Fatality Review Board
  - Columbus Area Pedestrian Safety Committee (CAPS)
  - Columbus Bicycle Safety Coalition
  - Mid-Ohio Regional Planning Commission (MORPC)
  - Bloom School of Driving Dynamix
  - Columbus Housing Partnership
  - Ohio Injury Prevention Partnership (OIPP)
  - Parents are the Key Campaign
  - National Safety Council Ohio Teen Safe Driving Coalition
  - SADD Franklin County
  - Hilliard Against Distracted Driving (HADD)
  - Neighborhood Pride
  - Hilltop YMCA
  - LOOP (LifeLine of Ohio)
  - DUI Task Force
  - Ricart Ford
  - Ashland Chemical
  - Dublin Kiawanis
  - SASSO (Student Athlete Support Services Office)

- Members of the OSU Burn Team participated in the Society of Fire Prevention Engineers' 21st Annual Burn Center Golf Outing on October 4, 2010. Proceeds of this annual outing are used to provide medical supplies and services for burn patients.
- Many members of the division gave talks on trauma and burn topics to EMS providers, staff of outside hospitals and other care providers throughout the state of Ohio.

## Publications

Blome-Eberwein S, Johnson RM, **Miller SF**, Caruso DM, Jordan MH, Milner S, Tredget EE, Sittig Km, Smith L. Hydrofiber dressing with silver for the management of split-thickness donor sites: A randomized evaluation of two protocols of care. *Burns* 2010; 36(5):666-72.

Christy JM, **Stawicki SP**, **Jarvis AM**, **Evans DC**, Gerlach AT, **Lindsey DE**, Rhoades P, **Whitmill ML**, **Steinberg SM**, Phieffer LS, **Cook CH**. The impact of antiplatelet therapy on pelvic fracture outcomes. *J Emerg Trauma Shock* 2011; 4(1):83-8.

Coba V, **Whitmill M**, Mooney R, Horst HM, Brandt MM, Digiovine B, Mlynarek M, McLellan B, Boleski G, Yang J, Conway W, Jordon J. Resuscitation bundle compliance in severe sepsis and septic shock: Improves survival, is better late than never. *J Intensive Care Med*. 2011 Jan 10. [Epub ahead of print].

**Cook CH**, **Trgovcich J**. Cytomegalovirus reactivation in critically ill immunocompetent hosts: A decade of progress and remaining challenges. *Antiviral Research* 2011; 90(3):151-159.

**Crockett A**, **Stawicki SP**, **Thomas YM**, **Jarvis A**, Wang C, **Beery PR**, **Whitmill ML**, **Lindsey DE**, **Steinberg SM**, **Cook CH**. Tree stands, not guns, are the Midwestern hunter's most dangerous weapon. *The American Surgeon* 2010; 76(9):1006-1010.

Cudnik M, Sayre M, Hiestand B, **Steinberg S**. Are all trauma centers created equally? A statewide analysis. *Acad Emerg Med* 2010; 17:701-708.

**Forster MR**, **Trgovcich J**, Zimmerman PD, Chang A, Miller C, **Cook CH**. Antiviral prevention of sepsis induced cytomegalovirus reactivation in immunocompetent mice. *Antiviral Research* 2010; 85(3):496-503.

Gerlach AT, Thomas S, **Stawicki PS**, **Whitmill M**, **Steinberg SM**, **Cook CH**. Vitamin B6 deficiency: A potential case of refractory seizures in adults. *JPEN* 2011; 35(2):272-5.

Gerlach AT, Thomas S, Murphy CV, **Stawicki PS**, **Whitmill ML**, Pourzanjani L, **Steinberg SM**, **Cook CH**. Does delaying early intravenous fat emulsion during parenteral nutrition reduce infections during critical illness? *Surg Infect* 2011; 12(1):43-7.

Gerlach AT, Murphy CV, **Stawicki SP**, **Cook CH**. Risk factors for aminoglycoside-induced nephrotoxicity in surgical ICU patients. *Int J Crit Illness and Injury Science* 2011; 1(1):15-19.

Jarvis AM, **Cook CH**, **Lindsey DE**, Reilley TE, **Steinberg SM**, **Beery PR**, **Whitmill ML**, Papadimos TJ, **Stawicki SP**. Comparison of epidural versus parenteral analgesia for traumatic rib fractures: A meta-analysis. *OPUS 12 Scientist* 2010; 3(3):50-57.

Lacaze P, Forster T, Ross A, Kerr LE, Salvo-Chirnside E, Lisnic VJ, Lopez-Campos GH, Garcia-Ramirez JJ, Messerle M, **Trgovcich J**, Angulo A, Ghazal P. Temporal profiling of the coding and noncoding murine cytomegalovirus transcriptomes. *J Virology* 2011; 85(12):6065-76.

Madore F, Kube E, **Stawicki SP**, Bahner DP. Utility of hand held portable ultrasound in a rural Guatemalan hospital. *OPUS 12 Scientist* 2011; 5(1):1-5.

**Miller SF**. In response: innovation and caring for large burn in the Iraq war zone. *Journal of Burn Care & Research* 2011; 32(3):e111.

Pillai P, Sharma R, MacKenzie L, Reilly EF, **Beery PR**, Papadimos TJ, **Stawicki SP**. Traumatic tension pneumocephalus: Two cases and comprehensive review of literature. *OPUS 12 Scientist* 2010; 4(1):6-11.

**Porshinsky BS**, Saha S, Grossman SS, **Beery PR**, **Stawicki SP**. Clinical uses of the medicinal leech: A practical review. *J Postgrad Med* 2011; 57(1):65-71.

Pritchett CV, Levinsky NC, Ha YP, Dembe AE, **Steinberg SM**. Management of acute appendicitis: The impact of CT scanning on the bottom line. *J Am Coll Surg* 2010; 210(5):699-707.

Rojavin Y, Seamon MJ, Tripathi RS, Papadimos TJ, Galwankar S, Kman N, Cipolla J, Grossman MD, Marchigiani R, **Stawicki SP**. Civilian nuclear incidents: An overview of historical, medical, and scientific aspects. *J Emerg Trauma Shock* 2011; 4:260-72.

Seamon MJ, Franco M, Smith B, **Stawicki SP**, Kulp H, Santora TA, Gaughan J, Goldberg A. Do chronic liver disease scoring systems predict outcomes in trauma patients with liver disease? A comparison of MELD and CTP. *J Trauma* 2010; 69(3):568-573.

Smith BP, Adams RC, Doraiswamy VA, Nagaraja V, Seamon MJ, **Wisler J**, Cipolla J, Sharma R, **Cook CH**, Gunter OL, **Stawicki SP**. A Review of abdominal damage control and open abdomens: Focus on gastrointestinal complications. *J Gastrointestin Liver Dis* 2010; 19(4):425-35.

**Smith V**, **Sun B**, **Lindsey D**, **Firstenberg MS**. Surgical management of unusual gastrointestinal bleeding and a left ventricular assist device. *Interact Cardiovasc Thorac Surg* 2010; 11(5):612-613.

**Stawicki SP**, **Howard JM**, Bahner DP, **Whitmill ML**. Portable ultrasonography in mass casualty incidents: The CAVEAT examination. *World J Orthop* 2010; 1(1):10-19.

**Stawicki SP**, Prosciak MP, Gerlach AT, **Bloomston M**, **Davido HT**, **Lindsey DE**, **Dillhoff ME**, **Evans DC**, **Steinberg SM**, **Cook CH**. Atrial fibrillation after esophagectomy: an indicator of postoperative morbidity. *General Thoracic and Cardiovascular Surgery* 2011; 59(6): 399-405.

**Stawicki SP**, Schuster D, Liu JF, Kamal J, Erdal S, Gerlach AT, **Whitmill ML**, **Lindsey DE**, **Thomas YM**, Murphy C, **Steinberg SM**, **Cook CH**. The glucogram: A new quantitative tool for glycemic analysis in the surgical intensive care unit. *Intl J Crit Illn Injury Sci* 2011; 1(1):5-12.

**Thomas AC**, **Forster MR**, Bickerstaff AA, Zimmerman PD, Wing BA, **Trgovcich J**, Bergdall VK, Klenerman P, **Cook CH**. Occult cytomegalovirus in vivarium housed mice may influence transplant allograft acceptance. *Transplant Immunology* 2010; 23:86-91.

Willette PA, **Beery PR**, Hartman JF, Wright ML. Does a category II trauma activation warrant the initial presence of an attending trauma surgeon? *J Emerg Med* 2010; 39(3):356-365.

**Wisler JW**, **Wisler JR**, **Coffey R**, **Miller SF**. The diversity of wound presentation associated with Freon contact frostbite injury. *Journal of Burn Care & Research* 2010; 31(5):809-12.

**Yeager S**, Doust C, Epting S, Iannantuono B, Indian C, Lenhart B, Manche D, Morris M, Newton B, Ortman L, Young K, Thomas K. Embrace hope: An end-of-life intervention to support neurological critical care patients and their families. *Crit Care Nurse* 2010; 30:47-58.

## Abstracts

**Eiferman DS**, **Evans DC**, **Cook CH**, Christy JM, Murphy CV, Gerlach AT, **Lindsey DE**, **Whitmill ML**, **Beery PR**, **Steinberg SM**, **Stawicki SP**. Pre-injury beta blocker use does not affect the hyperdynamic response in older trauma patients. 69th Annual Meeting of the American Association for the Surgery of Trauma, Boston, MA, September 22-25, 2010.

**Evans DC**, **Stawicki SP**, **Davido HT**, **Cook CH**, **Whitmill ML**, **Lindsey DE**, **Beery PR**, Gerlach AT, **Steinberg SM**, **Eiferman DS**. Obesity in trauma patients: Correlations of BMI with injury patterns and complications. Southeastern Surgical Congress, Chattanooga, Tn., February 12, 2011.

**Evans DC**, **Cook CH**, Christy JM, Murphy CV, Gerlach AT, **Lindsey DE**, **Whitmill ML**, **Beery PR**, **Steinberg SM**, **Stawicki SP**. Comorbidity-polypharmacy scoring may improve outcome prediction in older trauma patients. *J Am Coll Surg* 2010; 211(3S):S59.

Gerlach AT, Murphy CV, **Stawicki SP**, **Cook CH**. Comparison of creatinine clearance estimates in critically ill surgical patients. *Crit Care Med* 2010; 38(Suppl):Abstract 782.

Gerlach AT, Folino J, **Morris B**, Murphy CV, **Stawicki SP**, **Cook CH**. Comparison of heparin dosing based on actual body weight in non-obese, obese and morbidly obese critically ill patients. *Crit Care Med* 2010; 38(Suppl): Abstract 794.

**Howard JM, Eiferman DS, Evans DC, Gerckens JS, Bahner DP, Steinberg SM, Beery PR, Whitmill ML, Cook CH, Stawicki SP.** Two methods of hemodynamic and volume status assessment in critically ill patients – a study of disagreements. *JACS* 2010; 211(3S):S50.

**Howard JM, Eiferman DS, Evans DC, Gerckens JS, Bahner DP, Steinberg SM, Beery PR, Whitmill ML, Cook CH, Stawicki SP.** Reliability of intravascular volume and cardiac output measurements in the intensive care unit. *J Am Coll Surg* 2010; 211(3):S50.

Juranic-Lisnic V, Babic M, Jonjic S, **Trgovcich J.** Poster Presentation by V. Juranic. A transcriptomic approach to viral immunoregulatory gene research. Austrian Society for Allergology and Immunology in co-operation with the national societies of Croatia, Czech Republic, Hungary, Slovakia and Slovenia. Vienna, Austria, December 3-5, 2010.

Juranic-Lisnic V, Babic M, Trsan T, Jonjic S, **Trgovcich J.** Oral Presentation by V. Juranic. A transcriptomic approach to viral disease research – MCMV transcriptome reveals unexpected genome complexity. 10th Congress of the Croatian Society of Biochemistry and Molecular Biology, Opatija, Croatia, September 15-18, 2010.

**Stawicki SP, Schuster D, Liu JF, Kamal J, Erdal S, Gerlach AT, Whitmill ML, Lindsey DE, Murphy C, Steinberg SM, Cook CH.** The glucogram: A new quantitative tool for glycemic analysis in the surgical intensive care unit. *J Surg Res* 2010; 158(2):378.

Talmadge J, **Eiferman D, Bahner D.** Interest group alliance: A pilot program to improve the ultrasound education of students and clinicians [Abstract], 2011.

Wood M, **Beery PR, Wooten E, Pandya U, Solomon J, Marable K, Opalek J, Suh K.** Intermittent versus continuous gastric enteral nutrition in clinically ill trauma patients: A prospective randomized trial. In the proceedings of the 41st Annual Meeting of the Western Trauma Association, to Western Trauma Association, Big Sky, MT, March, 2011.

## International Presentations

**Cook CH.** Visiting Professor. Consequences of CMV reactivation in immune competent hosts. University of Rijeka, Rijeka, Croatia, October 18, 2010.

**Cook CH.** Visiting Professor. Consequences of CMV reactivation in immune competent hosts. Johannes Gutenberg University of Medicine, Mainz, Germany, May 10, 2011.

**Eiferman DS.** Presenter. The role of trauma centers & systems: The US experience. Presented at 2011 Sino-USA Medical Symposium, Yangzhou University, China, April 22, 2011

**Eiferman DS.** Presenter. The role of trauma centers & systems: The US experience. Presented at 2011 Sino-USA Medical Symposium, Changcha University, China, April 24, 2011.



**Eiferman DS.** Presenter. The role of trauma centers & systems: The US experience. Presented at 2011 Sino-USA Medical Symposium, Xian University, China, April 29, 2011.

**Eiferman DS.** Presenter. The role of trauma centers & systems: The US experience. Presented at 2011 Sino-USA Medical Symposium, Guangzhou, China, April 26, 2011.

Gerlach AT, Thomas S, Murphy CV, Pourzanjani L, **Whitmill M, Steinberg SM, Stawicki SP, Cook CH.** Poster Presenter. Does withholding early intravenous fat emulsion from parenteral nutrition reduce infections during critical illness? Presented at Clinical Nutrition Week 2011 ASPEN, Vancouver, BC, January 29 - February 1, 2011.

Juranic-Lisnic V, Babic M, Jonjic S, **Trgovcich J.** Poster Presentation by V. Juranic. A transcriptomic approach to viral immunoregulatory gene research. Austrian Society for Allergology and Immunology in co-operation with the national societies of Croatia, Czech Republic, Hungary, Slovakia and Slovenia. Vienna, Austria, December 3-5, 2010.

Juranic-Lisnic V, Babic M, Trsan T, Jonjic S, **Trgovcich J.** Oral Presentation by V. Juranic. A transcriptomic approach to viral disease research – MCMV transcriptome reveals unexpected genome complexity. 10th Congress of the Croatian Society of Biochemistry and Molecular Biology. Opatija, Croatia, September 15-18, 2010.

**Lindsey DE.** Presenter. Damage control laparotomy – current management of hemorrhage in trauma. Presented at 2011 Sino-USA Medical Symposium, Shanghai University, Shanghai, China, April 18, 2011.

**Lindsey DE.** Presenter. Damage control laparotomy – current management of hemorrhage in trauma. Presented at 2011 Sino-USA Medical Symposium, Yangzhou University, China, April 22, 2011.

**Lindsey DE.** Presenter. Damage control laparotomy – current management of hemorrhage in trauma. Presented at 2011 Sino-USA Medical Symposium, Changcha University, China, April 24, 2011.

**Lindsey DE.** Presenter. Damage control laparotomy – current management of hemorrhage in trauma. Presented at 2011 Sino-USA Medical Symposium, Xian University, China, April 29, 2011.

**Lindsey DE.** Presenter. Damage control laparotomy – current management of hemorrhage in trauma. Presented at 2011 Sino-USA Medical Symposium, Guangzhou, China, April 26, 2011.

## National Presentations

**Cook CH.** Transfusion for trauma and critical care. 31st Annual Adult and Pediatric Trauma Symposium, St. Francis Trauma Institute, Tulsa, Ok., September 17, 2010.

**Cook CH.** Glycemic control in trauma and critical care. 31st Annual Adult and Pediatric Trauma Symposium, St. Francis Trauma Institute, Tulsa, Ok., September 17, 2010.

Coffey R, Kulisek J, Tanda R, Chipps E. Using computer based learning as a method of establishing competency in the care of high risk, low volume nursing care. Podium Presentation, American Burn Association National Meeting, Chicago, Il, April 1, 2011.

Eiferman D, Evans D, Cook C, Christy J, Murphy C, Gerlach A, **Lindsey DE, Whitmill ML, Beery PR, Steinberg SM, Stawicki S.** Poster Presenter. Pre-injury beta blocker use does not affect the hyperdynamic response in older trauma patients. Presented at American Association for the Surgery of Trauma. Boston, Ma., September 22 – 25, 2010.

**Evans DC, Stawicki SP, Davido HT, Cook CH, Whitmill ML, Lindsey DE, Beery PR, Gerlach AT, Steinberg SM, Eiferman DS.** Lecturer. Obesity in trauma patients: Correlations of BMI with injury patterns and complications. Presented at Southeastern Surgical Congress to Southeastern Surgical Congress, Chattanooga, Tn., February 12, 2011.

**Evans DC, Cook CH,** Christy JM, Murphy CV, Gerlach AT, **Lindsey DE, Whitmill ML, Beery PR, Steinberg SM, Stawicki SP.** Comorbidity-polypharmacy scoring may improve outcome prediction in older trauma patients. Presented at the American College of Surgeons Clinical Congress, Washington, DC, October 4, 2010.

Gerlach AT, Thomas S, Murphy CV, Pourzanjani L, **Whitmill ML, Steinberg SM, Stawicki SP, Cook CH.** Does withholding early intravenous fat emulsion from parenteral nutrition reduce infections during critical illness? Presented at the Surgical Infection Society 31st Annual Meeting, Palm Beach, Fl., May 11-14, 2011.

Gerlach AT, Folino J, Morris B, Murphy CV, **Stawicki SP, Cook CH.** Poster Presenter. Comparison of heparin dosing based on actual body weight in non-obese, obese and morbidly obese critically ill patients. Presented at SCCM, San Diego, Ca., January 15-19, 2011.

Gerlach AT, Murphy CV, **Stawicki SP, Cook CH.** Poster Presenter. Comparison of creatinine clearance estimates in critically ill surgical patients. Presented at SCCM, San Diego, Ca., January 15-19, 2011.

**Howard JM, Eiferman DS, Evans DC,** Gerckens JS, Bahner DP, **Steinberg SM, Beery PR, Whitmill ML, Cook CH, Stawicki SP.** Two methods of hemodynamic and volume status assessment in critically ill patients – a study of disagreements. Presented at American College of Surgeons 96th Annual Clinical Congress. Washington, DC, October 3 – 7, 2010.

McNulty D, Shapiro R, Shapiro M, Markert R, Gilchrist J, Perry T, Johnson RM, **Miller SF.** The relationship of the burn patient's cognitive level as measured by ACLs and perceived quality of health. Poster presentation at the American Burn Association 43rd Annual Meeting, Chicago, Il., March 29-April 1, 2011.

**Miller SF.** Chair. Major Contributions by the Burn Community, Presidential Address, American Burn Association 43rd Annual Meeting, Chicago, Il., March 29-April, 2011.

**Miller SF.** Instructor. Presented at Disaster Management and Emergency Preparedness Course, Wesley Medical Center, Wichita, Ks., January 13, 2011.

**Miller SF.** Presenter. ABA Outreach to support your burn center. Presented at 23rd Annual Southern Region Burn Conference, Memphis, Tn., November 12-14, 2010.

**Miller SF.** Presenter. ABA Outreach to support your burn center. Presented at Northeast Region Burn Conference, Providence, RI, November 4-6, 2010.

**Miller SF.** Presenter. ABA Outreach to support your burn center. Presented at Midwest Region Burn Conference, Madison, Wi., October 22-23, 2010.

**Miller SF.** Presenter. ABA Outreach to support your burn center. Presented at Western Region Burn Conference, San Francisco, Ca., October 14–16, 2010.

**Miller SF, Luedke E, Coffey R.** Presenter. Electrical burns and the development of post traumatic stress disorder and associated psychological sequelae, A Retrospective Study. Presented at 38th Annual Great Lakes Burn Study Group, Cincinnati, Oh., September 16-17, 2010.

**Miller SF, Murphy C, Coffey R.** Presenter. Intraosseous access use at burn centers. Presented at 38th Annual Great Lakes Burn Study Group, Cincinnati, Ohio, September 16-17, 2010.

**Miller SF, Wisler JR, Murphy C, Coffey R.** Presenter. Evaluation of acute and chronic hyperglycemia in burn injured patients. Presented at 38th Annual Great Lakes Burn Study Group, Cincinnati, Oh., September 16-17, 2010.

Murphy CV, **Coffey R**, Calvitti K, Linscott P, **Miller SF.** Comparison of soap and dilute chlorhexidine gluconate for burn wound cleansing. Poster Presentation at the American Burn Association Annual Meeting, Chicago, Il., March 29-April 1, 2011.

**Smith A.** Distracted Driving. ThinkFirst Conference on Injury Prevention: Celebrating 25 Years! Hyatt Regency at the Colorado Convention Center, Denver, Co., April 9, 2011.

Talmadge J, **Eiferman DS**, Bahner D. Poster Presenter. Interest Group Alliance: A pilot program to improve the ultrasound education of students and clinicians. Presented at First World Congress for Ultrasound in Medical Education. Columbia, SC, April 29 - May 1, 2011.

Wood M, **Beery PR**, Wooten E, Pandya U, Solomon J, Marable K, Opalek J, Suh K. Presenter. Intermittent versus continuous gastric enteral nutrition in clinically ill trauma patients: A prospective randomized trial. Presented at 41st Annual Meeting of the Western Trauma Association, to Western Trauma Association. Big Sky, Mt., March, 2011.

## Miscellaneous Presentations

**Beery PR.** Thoracic trauma. CME presentation, Scioto County Medical Society, SOMC South Campus, Portsmouth, Oh., January 13, 2011.

**Beery PR.** Traumatic brain injuries. CME presentation, Genesis Health Care System, Zanesville, Oh., October 26, 2010.

**Beery PR, Coffey R.** Crash and burn. Columbus, Fire Department, Columbus, Oh., December 20, 2010.

**Beery PR.** Crash and burn. Pataskala Fire Department, Pataskala, Oh., December 2, 2010.

**Betz S.** Introduction to trauma care – graduate entry students. Ohio State University Conference, Columbus, Oh., August 11, 2010.

**Betz S.** Trauma case review. Trauma tactics, Columbus, Oh., August 11, 2010.

**Betz S.** Farm injuries. Monroe County Fair, Woodsfield, Oh., August 26, 2010.

**Betz S.** Trauma 101. Mount Carmel Medical Center Conference, Columbus, Oh., October 6, 2010.

**Betz S.** Case review – GSW / hemophiliac. COTS TPIC, Columbus, Oh., October 7, 2010.

**Betz S.** Surviving the fear factor of trauma. Wyandot Memorial Hospital, Sandusky, Oh., October 12, 2010.

**Betz S, Coffey R.** Crash and burn. Emergency Medical Services, Prairie Township, Oh., October 13, 2010.

**Betz S.** Trauma 101. Hospital staff, Springfield, Oh., October 25, 2010.

**Betz S.** Trauma 101. Hospital staff, Newark, Oh., October 26, 2010.

**Betz S.** Trauma 101. Hospital staff, Newark, Oh., October 27, 2010.

**Betz S.** Trauma triage, assessment, and stabilization. Emergency Medical Services and Fire Department, Newark, Oh., October 27, 2010.

**Betz S.** Trauma triage, assessment, and stabilization. Emergency Medical Services and Fire Department, Newark, Oh., October 28, 2010.

**Betz S.** Airway and breathing emergencies. Fairfield Medical Center Critical Care Conference, Fairfield, Oh., October 29, 2010.

**Betz S.** Trauma 101. Capital University, Columbus, Oh., November 5, 2010.

**Betz S.** Advanced trauma tactics – burn care. Riverside Registered Nurses, Columbus, Oh., April 14, 2011.

Brown J, Calvitti K, **Coffey R**, Jeffers T. Ohio State University Outreach and Prevention on the Oval. Ohio State University community and students, Columbus, Oh., September 20, 2010.

Calvitti K, **Coffey R**, Garrison J, Kellar K. Burn Prevention Outreach at the Ohio Union. OSU Students, faculty, and staff, Columbus, Oh., February 9, 2011.

**Carraro E, Cook CH, Evans DC, Stawicki SP, Postoev A, Olcese V, Phillips G, Eiferman DS.** Discussant. Portable chest X-rays add no predictive value in diagnosis of ventilator associated pneumonia. Presented at OSU Department of Surgery Research Conference, Columbus, Oh., June 10, 2011.

**Coffey R.** Crash and burn. Worthington Fire Department, Worthington, Oh., August, 3, 2010.

**Coffey R.** Advanced trauma tactics – burn care. OSUMC for ED and trauma nurses from local hospital, Columbus, Oh., August 11, 2010

**Coffey R, Casavant C.** New Albany Classics Outreach. Community, New Albany, Oh., September 10-11, 2010.

**Coffey R, Stewart T.** Crash and burn. Columbus Fire Department, Columbus, Oh., December 16, 2010.

**Coffey R, Dahman J, Schmidt J.** Burn Prevention Community Outreach, Violet Township Fire Department, Pickerington, Oh., October 10, 2010.

**Coffey R.** Crash and burn. Emergency Medical Services, Prairie Township, Oh., October 13 2010.

**Coffey R.** Trauma tactics – burn care. Registered Nurses, Ohio State University Medical Center, Columbus, Oh., October 14, 2010.

**Coffey R.** Crash and burn. Medics, Columbus Fire Department, Columbus, Oh., November 30, 2010.

**Coffey R.** Trauma tactics. Grant Medical Center, Columbus, Oh., December 8, 2010.

**Coffey R.** Crash and burn. Columbus Fire Department, Columbus, Oh., December 20, 2010.

**Coffey R.** Crash and burn. Emergency Medical Services Conference, Westerville, Oh., January 22, 2011.

**Coffey R.** Advanced trauma tactics – burn care. OSUMC-Registered Nurses, Columbus, Oh., February 10, 2011.

**Coffey R.** Things that go BOOM. Emergency Medical Services, Adena, Oh., February 24, 2011.

**Coffey R.** Burn dressings. Ohio State University Emergency Department, Columbus, Oh., March 8, 2011.

**Coffey R.** Burn dressings. Ohio State University Nursing Students, Columbus, Oh., March 11, 2011.

**Coffey R.** Burn dressings. Ohio State University Nursing Students, Columbus, Oh., April 6, 2011.

**Coffey R.** Emergency Medical Services Education. Emergency Medical Services, Fire Station, McConnelville, Oh., May 1, 2011.

**Coffey R.** Advanced trauma tactics – burn care. Riverside Registered Nurses, Columbus, Oh., May 11, 2011.

**Coffey R.** Crash and burn. Emergency Medical Services, Cambridge, Oh., May 24, 2011.

**Coffey R, Kulisek J, Tanda R, Chipps E.** Early recognition and treatment of alcohol withdrawal syndrome in burn patients: Impact of nursing care and patient outcomes using new clinical guideline. 38th Annual Eastern Great Lakes Burn Study Group, Cincinnati, Oh., September 16-17, 2010.

**Cook CH.** Lecturer. A review of hunting related injuries in central Ohio. Presented at Ohio Hunter and Trapper Education Instructors Association Annual Banquet, to Ohio Hunter and Trapper Education Instructors, Delaware, Oh., February 26, 2011.

**Davido HT, Ellison EC, Steinberg SM, Park T.** Surgery Fair: Equipment variability and efficiency in the OR. Ohio State University Medical Center, Columbus, Oh., December 9, 2010.

**Eiferman DS, Kaide C, et.al.,** Discussant. Beyond FFP: The emergency reversal of anticoagulation. Presented at The Ohio State University Department of Emergency Medicine Grand Rounds. Columbus, Oh., February 16, 2011.

**Eiferman D.** Lecturer. What is DVMA? Presented at Surgical Grand Rounds, to Surgery Residents, Faculty, Medical Students. Biomedical Research Tower, The Ohio State University, Columbus, Oh., January 6, 2011.

**Evans DC, Stawicki SP, Davido HT, Cook CH, Whitmill ML, Lindsey DE, Beery PR, Gerlach AT, Steinberg SM, Eiferman DS.** Presenter. Obesity in older trauma patients: correlations of BMI with outcomes, injury patterns, and complications. Presented at 2nd Annual Central Ohio Trauma System Trauma Research Symposium, Columbus, Oh., May 19, 2011.

**Koser L.** Colonoscopy: Oral bowel cleansing preparation. Mentor for The Ohio State University Residency Program. Presented at The University Health System Consortium (UHC)/AACN Residency Program, Columbus, Oh., October 31, 2010.

**Miller SF.** Lecturer. Introduction to wound healing. Presented at Burn Management for Nurses, The Ohio State University Medical Center, Columbus, Oh., May 19, 2011.

**Miller SF.** Lecturer. Advanced trauma life support. Central Ohio Trauma System, Columbus, Oh., February 12, 2011.

**Miller SF.** Crash and burn. Medics Fire Station Pataskala, Oh., December 2, 2010.

**Miller SF.** Dermatologic emergencies. MATCH: Multidisciplinary Advances in the Treatment of the Critically-ill Hospitalized patient, Columbus, Oh., September 21, 2010.

Mitchell K, **Stewart T.** Hospital visit. Adena Regional Medical Center, Chillicothe, Oh., August 24, 2010.

**Porshinsky B.** Crash and burn. Medic Refresher Course, Medics, Berlin Township, Oh., October 27, 2010.

**Porshinsky B.** Things that go BOOM. Medics, Columbus, Oh., December 11, 2010.

**Smith A.** Poster presentation: OSUMC's teen driving injury prevention initiatives. The Ohio Injury Prevention Partnership Annual Conference, Prevention of Brain Injury Among Ohio Youth: Helping them reach their full potential, Northeast Conference Center, Westerville, Oh., July 30, 2010.

**Smith A.** Make A Difference! Showcasing the VIP role of survivors in promoting injury prevention. The Brain Injury Association of Ohio 29th Annual Educational Conference, Double Tree Hotel, Worthington, Oh., November 1, 2010.

**Steinberg SM.** The current management of hemorrhage in trauma: Cut well, sew well, sleep well. Genesis Health Care System, Zanesville, Oh., October 27, 2010.

**Stewart T.** Crash and burn. Emergency Medical Services, Zanesville, Oh., August 3, 2010.

**Stewart T.** Hospital visit. St. Rita's Medical Center, Lima, Oh., August 25, 2010.

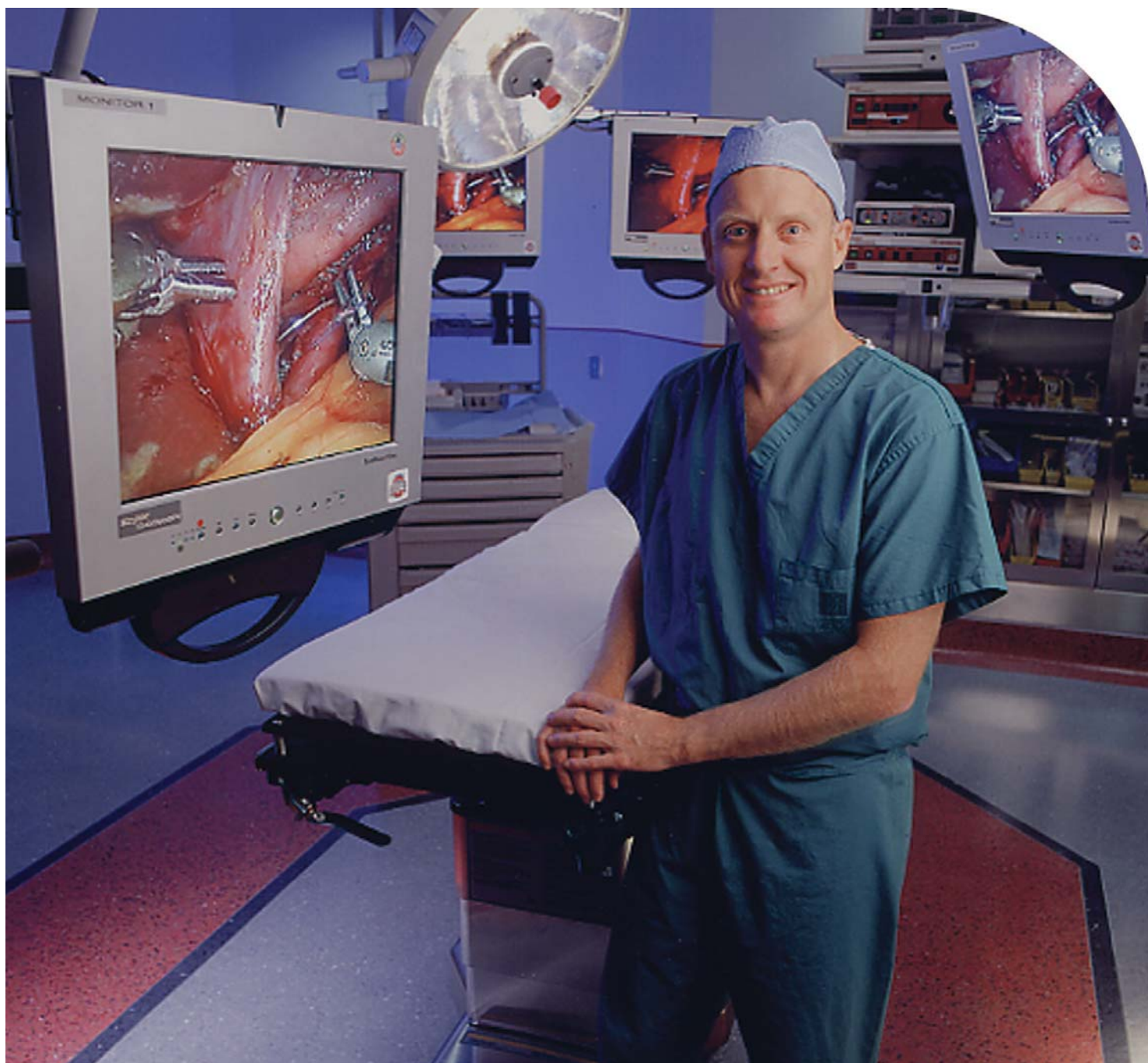
**Stewart T.** Trauma triage. Emergency Medical Services, Adena, Oh., October 21, 2010.

**Stewart T.** Trauma and pregnancy; Geriatric trauma. Emergency Medical Services, Delaware County, Oh., October 27, 2010.

**Whitmill ML.** Postoperative fever. Grand Rounds, Licking Memorial Hospital, Newark, Oh., February 7, 2011.



## Division of General and Gastrointestinal Surgery





# General and Gastrointestinal Surgery



**W. Scott Melvin, MD**

Chief, Division of General and Gastrointestinal Surgery  
Director, Center for Minimally Invasive Surgery

**T**he Division of General and Gastrointestinal Surgery is committed to excellence in education, training, research and clinical care in general surgery, foregut, and colorectal surgery. We strive to offer the newest and most cutting edge treatments. Our surgeons are leaders in their respective fields and we continue to recruit the best and brightest talent to expand our Division's ability to offer the best to our patients. We continue to make contributions to surgery in the fields of gastroesophageal reflux disease, endoluminal and minimally invasive surgery, bariatric surgery, surgical endoscopy, and the treatment of malignant disease of the gastrointestinal tract, including pancreatic, esophageal and gastric cancer. Surgical Education and the training of medical students, residents, fellows and physicians in practice is an integral piece of our Division's academic endeavors. We strive as group to cultivate those individuals with a passion for surgery, through one-on-one teaching opportunities, educational course series options, and hands-on instruction in clinical and laboratory settings.

In April 2011, a delegation of OSU surgeons which included Drs. W. Scott Melvin, Jeffrey Hazey and Bradley Needleman traveled to Wenzhou, China. With a \$10,000 grant from the OSU Gateway Program, the Center for Minimally Invasive Surgery (CMIS) was able to establish a collaborative relationship between our center and the First Affiliated Hospital, Wenzhou Medical College. This educational collaboration involved developing an institute and a mechanism for surgical training as it relates to minimally invasive surgery. Also, a 2-day educational symposium was held at their hospital and was attended by surgeons from that region of China as well as an international delegation of medical students including several students from the study abroad program at OSU. Topics presented by OSU surgeons at the symposium included lectures on minimally invasive approaches to bariatric surgery, pancreatic surgery, treatment of gastroesophageal reflux disease, natural orifice surgery and the SAGES Fundamentals

of Laparoscopic Surgery (FLS) and Fundamentals of Endoscopic Surgery (FES). OSU medical students also had the opportunity to present a lecture on Secondary and Professional Medical Education Selection and Specialty Selection in the United States Medical System. Future collaboration will be explored over the next year to include visiting scholars from their program visiting OSU CMIS to participate in surgical observations, research and our educational programs as well as quarterly video conferences to discuss updates and new technology in minimally invasive surgery.

In basic and translational science research Chandan K. Sen, PhD, Director of the Comprehensive Wound Center and Vice Chair for Research in the Department of Surgery, is the principal investigator of two active National Institutes of Health research projects and one Department of Defense project with total funding exceeding \$4 million. Dr. Sen is the Director of the Laboratory of Molecular Medicine and serves as the Deputy Director of the Davis Heart and Lung Research Institute. Dr. Sen also is the Associate Dean for Translational and Applied Research in the College of Medicine. The primary focus of Dr. Sen's laboratory is to study tissue injury, repair, remodeling, and survival. Dr. Sen has been named as Chair of the NIH's Surgery, Anesthesia and Trauma study section. Dr. Sen has presented eight keynote addresses and plenary lectures on the subject during the year in national and international conferences. Dr. Sen is the Executive Director of the Comprehensive Wound Center (CWC), which combines patient care with research and education. The CWC serves over 1500 patient visits a month. The CWC funded its first clinical trial in 2006, and today there are six extramurally-funded trials that either have been completed or are in progress with Dr. Sen as the PI. At present the CWC has over a dozen faculties from six different Colleges making it a truly interdisciplinary program. Dr. Sen has served on the board of directors of the Wound Healing Society. Dr. Sen is the Editor-in-Chief of an international peer-reviewed journal, *Antioxidants & Redox Signaling* ([www.liebertpub.com/ars](http://www.liebertpub.com/ars)) which has an impact factor of 7.58, ranking number 1 in the field. Dr. Sen serves as the Associate Editor of the prestigious journal *Physiological Genomics*, a publication of the widely respected American Physiological Society. Dr. Sen is the Editor-In-Chief of *Advances in Wound Care* ([www.liebertpub.com](http://www.liebertpub.com)), the official yearbook of the Wound Healing Society. In addition, Dr. Sen serves on the editorial board of five other journals and as a peer reviewer of over 25 major journals. Dr. Sen is the program director of the Novel Clinical and Translational Methodologies and Pilot Studies programs of the Ohio State Center for Clinical and Translational Research (CCTS). The CCTS was awarded a NIH CTSA grant of \$34.1 million. Dr. Sen also serves as a voting member of NIH's national CTSA Public Private Partnerships Steering Committee. In 2009, he was designated as NIH Champion of Change for The Ohio State University. Dr. Sen also serves as a faculty advisor on the Indian Gateway Project for the OSU Globalization Initiative. The OSU Indian gateway office is expected to open in 2012.

Dr. Sashwati Roy, associate professor of surgery, is building a diabetic wound healing program in partnership with the teams of Drs. Sen, Gordillo, and Melvin. In particular, her program focuses on the mechanisms of resolution of inflammation and impairment of this process in chronic wound of diabetics. The first paper related to this work was published last year [PLoS One. 2010 5(3):e9539]. Dr. Roy is an expert in microarray analyses and data mining in functional genomics, as well as laser capture microdissection. Dr. Roy serves as the Director of the Laser Capture Microdissection Core Facility. She is the principal investigator of an active National Institutes of Health research project with funding exceeding \$1.2 million, and is the co-investigator on three wound healing projects. She has recently received a major NIH instrumentation grant for purchase of LCM equipment for the LCM core facility. Dr.

Roy is an adhoc reviewer for NIH ACTS, S10 Sections and a reviewer for NIH challenge grants and veterans affairs (VA). She has published ten papers in reputed journals during this academic year. She has also undertaken editing a book on inflammation that is scheduled to be completed in 2012. In total, Dr. Roy has published over 175 scholastic journal articles and book chapters. In addition, Dr. Roy serves as a peer reviewer of nearly 20 major journals. Dr. Roy is a member of the Signature Program Translational Science Curriculum Sub-Committee. She serves as a chair for the Awards Committee of the Wound Healing Society (WHS). She enjoys working with undergraduates, medical students, and residents interested in the basic/translational science of wound healing.

Dr. Savita Khanna, assistant professor in the Department of Surgery since July 2009, is building a research program on brain injury and rescue. The first paper related to this work was published last year [J Cereb Blood Flow Metab. 2010 Jul; 30(7):1275-87.]. She has extensive experience in *in vitro* and *in vivo* studies related to mechanisms of neurodegeneration and interventional rescue. Dr. Khanna has received three competitive grants, a Research Investment Fund (RIF) award, an NIH-sponsored Clinical and Translational Science Award (CTSA) Pilot Award, and the Center for Clinical and Translational Science (CCTS) NCTMP Matching Dissemination Funds award within the last two years. Dr. Khanna has served on the DHLRI (Davis Heart and Lung Research Institute) Education Committee since 2009 and was a reviewer for the CCTS Early Stage Investigator Selection Committee last year. She serves as the managing editor for the international peer-reviewed journal, *Antioxidants & Redox Signaling*, which has an impact factor of 7.581. She also serves as a peer reviewer for twelve major journals. Dr. Khanna has published fifteen papers, five as senior author in reputed journals over the past year. In total, Dr. Khanna has published over eighty-eight journal articles, and has presented her work at meetings and conferences both nationally and internationally. Dr. Khanna works with a highly-skilled team of collaborators (Dr. Cameron Rink, PhD, Dr. Periannan Kuppusamy, PhD, and Dr. Andrew Slivka, MD), and is building a successful laboratory and research program.

Dr. E. Christopher Ellison, the Robert M. Zollinger professor and chairman of Surgery, continues to serve as associate vice president for Health Sciences and vice dean of Clinical Affairs in the College of Medicine and completed his term as the Chair of the American Board of Surgery. He continues to serve as Secretary of the American Surgical Association and Treasurer of the James IV Association of Surgeons. Repeatedly recognized as one of the nation's top physicians, Dr. Ellison was listed again this year by Best Doctors in America. His book, co-authored with Dr. Thomas E. Williams, Jr. and Dr. Bhagwan Satiani, "*The Coming Shortage of Surgeons: Why They Are Disappearing and What That Means for Our Health*" was published in September 2009 and is a quantitative analysis of the workforce in orthopedic and thoracic surgery, otolaryngology, obstetrics and gynecology, general surgery, neurosurgery, and urology. In the fall of 2010, along with Robert M. Zollinger Jr MD,FACS, Dr Ellison completed the ninth edition of the *Zollinger Atlas of Surgical Operations* published by McGraw-Hill. Dr. Ellison maintains an active clinical practice focusing on pancreatic and esophageal diseases, and he continues to serve as an outstanding teacher of medical students and residents.

W. Scott Melvin, MD, professor of surgery is the Chief of the Division, as well as the Director of the Center for Minimally Invasive Surgery and the Senior Vice Chairman for Academic and Administrative Affairs the Department of Surgery. Dr. Melvin's clinical practice focuses on advanced minimally invasive surgical treatments for gastroesophageal reflux disease and other esophageal disorders, as well as

advanced hepatobiliary surgery. In addition to his leadership within the Medical Center, Dr. Melvin is a member of a variety of local, national and international societies. He is currently the President-Elect for the Society of American Gastrointestinal and Endoscopic Surgeons, Committee Chair of their Business Development Advisory Group, and Chair of the Program Committee. Dr. Melvin is the Editor in Chief of the Journal of Surgical Laparoscopy, Endoscopy & Percutaneous Techniques, and serves on the editorial board of *Surgical Endoscopy and Surgical Innovations*. He is also the American Board of Surgery representative on the Advisory Board in General Surgery for the American College of Surgeons.

Mark W. Arnold, MD, professor of clinical surgery, is the Vice Chair for Education in the Department of Surgery and the Director of the General Surgery residency program. The residency program continues to grow in prestige and volume with 44 residents in total, graduating six per year. Dr. Arnold also participates as an instructor for the Colorectal Fellowship program. This year he was named Chair of the OSUMC Duty Hour Task Force, which was charged with reviewing the new resident hour regulations and the challenges they pose to collaboratively come up with changes in departmental and institutional systems to adequately address them. While participating in all levels of education, he maintains a busy clinical practice that focuses on treatment of colorectal diseases and disorders.

Alan Harzman, MD, assistant professor of clinical surgery, continues to expand his busy clinical practice specializing in treatment of benign and malignant disease of the colon. His primary clinical focus is the treatment of colorectal diseases and disorders, offering advanced minimally invasive approaches for many. In addition to clinical duties, Dr. Harzman is a valued member of the medical staff community, serving on eight different Medical Center and College of Medicine committees. This year he was elected the Vice President/President Elect of the Faculty Council for the College of Medicine. The position is a two-year term and is voted on by his committee peers. Dr. Harzman is educator for both residents and medical students alike and serves as the assistant clerkship director for the Department of Surgery. In June Dr. Harzman attended the Harvard Macy Institute's Leading Innovations in Health Care and Education program focused on adapting principles of innovation, management and teamwork to medical education. His project from that focuses on integrating deliberate practice and disruptive technologies into student and resident education.

Jeffrey Hazey, MD is associate professor of surgery and the director of the Fellowship in Advanced Therapeutic Endoscopy and Gastrointestinal Surgery. Dr. Hazey is an active member on hospitals-based committees and serves as an at-large member on the OSU Surgery Board of Directors, the OUMC Health Systems Physician Executive Council, and is the surgery representative on both the Integrated Health Information Systems Implementation Committee and the OpTime Steering Committee. His clinical practice focuses on advanced therapeutic endoscopy, including ERCP, as well as advanced minimally invasive surgical procedures.

Dr. Hazey is a committed educator both within our Medical Center, training medical students, residents and practicing physicians in continuing medical education courses, and beyond where he participates in educational activities and committees on a national level. Dr. Hazey is a member of many different committees within the Society of American Gastrointestinal Endoscopic Surgeons (SAGES), including the Flexible Endoscopy Committee, the development team for the Fundamentals of Endoscopic Surgery (FES), and the Global Initiative Council. This year Dr. Hazey traveled to the Wenzhou Medical College in China with a small delegation from the Division to lecture and educate local surgeons in minimally invasive surgical procedures and techniques.

Syed Husain, MD, assistant professor of clinical surgery, continues to grow his clinical practice, with a specialty focus on minimally invasive treatments for benign and malignant colon and rectal disease. In addition to his clinical duties, Dr. Husain has participated as a guest lecturer at a number of regional and national meetings, including a panel session on Ischemic Colitis and Gastrointestinal Hemorrhage. Colonic Emergencies at the 2010 American College of Surgeons meeting held in Washington, DC. He is an active participant in medical student and resident educational activities, as well as the Colorectal Fellowship program.

Andrei Manilchuk, MD, assistant professor of clinical surgery, continues to grow his clinical practice in general surgery, focusing on complicated hernia repair and hepatobiliary disease. He participates in various workshops in advanced surgical techniques for colon surgery and for abdominal wall reconstruction and continues to be a valuable resource for a variety of advanced surgical diseases. Dr. Manilchuk is a dedicated educator of residents and medical students alike, often recognized for his achievements in this arena.

Dean Mikami, MD, assistant professor of surgery, has been an active member of our Division since 2003. His clinical practice focuses on advanced minimally invasive surgical procedures specializing in laparoscopic bariatric surgery, minimally invasive approaches for hernia repair, and novel endoluminal therapies. Dr. Mikami is active on multiple committees within the Medical Center, including the Quality Assurance and Patient Affairs Committee and Professionalism Committee. On a national level he plays an active role in both the Society of American Gastrointestinal Endoscopic Surgeons and the American Society of Metabolic and Bariatric Surgery, serving on multiple subcommittees. Dr. Mikami is a frequently invited speaker on both minimally invasive surgical treatment options for obesity and laparoscopic hernia repair. He served on the editorial board for the book *Evidence Based Minimally Invasive Surgery* which was published this year.

Peter Muscarella, MD, associate professor of surgery, serves as the assistant program director for the Surgical Residency Training Program and the Director of the Surgical Clerkship for medical students. Under his direction the Department of Surgery has implemented the American College of Surgeon's (ACS) Surgical Skills Curriculum for all general surgery residents. Dr. Muscarella is committed to the cultivation of medical students interested in pursuing a career in surgery. He is the mentor for the Honors Program in Surgery, which accepts only the best and brightest medical students, and helps them to understand and appreciate the ever changing field of surgery. Dr. Muscarella's research focuses on gastrointestinal disorders, and he has an extremely busy practice that focuses on surgical management of pancreatic diseases and disorders.

Vimal Narula, MD, assistant professor of clinical surgery, continues to expand his clinical practice with a focus on advanced therapeutic endoscopy, including ERCP, and minimally invasive surgical treatments for common general surgery procedures. Dr. Narula is an active member of the educational team, and serves as an instructor for continuing medical education courses offered through the Center for Minimally Invasive Surgery and is a committed instructor for Surgical Skills Curriculum and Fundamental of Laparoscopic Surgery for the general surgery residents. This year Dr. Narula was accepted in the Faculty Teaching Scholars Program (FTSP), which couples work on teaching Skills, scholarship training and a

project. Continuing to participate in the expanding field of NOTES research, Dr. Narula leads an investigator initiated study looking at the safety and feasibility of transvaginal cholecystectomy. He performed the first transvaginal cholecystectomies in the state of Ohio. This study is a stepping stone to a larger, multi-center trial sponsored by Natural Orifice Surgery Consortium for Assessment and Research (NOSCAR).

In October 2010, Bradley Needleman, MD, associate professor of clinical surgery, was appointed the Director of the Comprehensive Weight Management Center and the Metabolic Bariatric Surgery Center at The OSU Medical Center. This appointment is an expansion of his previous role as the Bariatric Surgery Director, and allows for increased program integration and oversight of all aspects of the weight management program offerings at OSUMC. In this role Dr. Needleman looks forward to continuing the expansion of the case volume for bariatric surgery, as well as streamlining and personalizing the experience for the patient. Beyond his leadership role with the Medical Center, Dr. Needleman continues to cultivate professional ties with colleagues at the Wenzhou Medical College. Returning to China this past spring with other members of the Division, Dr. Needleman participated in ongoing educational endeavors to bring minimally invasive surgical procedures and techniques to the people of this region.

Kyle Perry, MD, assistant professor of surgery, joined our Division in July 2009. His clinical practice focuses on the treatment of benign and malignant esophageal and gastric disorders including esophageal and gastric cancer, Barrett's esophagus and minimally invasive approaches to gastroesophageal reflux disease (GERD). Beyond the medical center, Dr. Perry is an active member in the Society of American Gastrointestinal Endoscopic Surgeons where he serves on five individual committees and serves as an ad hoc manuscript reviewer for national journal publications. His current research endeavors include funding from SAGES for an ongoing project entitled "Identifying the Optimal Duration of Gastric Ischemic Conditioning to Improve Gastroesophageal Anastomotic Wound Healing" and he serves as the Site PI in a multi-center trial entitled "Randomized Esophyx Versus Sham/Placebo Controlled TIF Trial: The RESPECT study".

Dr. David Renton, assistant professor of clinical surgery, became a member of our team in August 2009. His clinical practice at University Hospital East focuses on minimally invasive treatment options for a variety of gastrointestinal surgical operations, including "single-incision" options for such common operations as gall bladder removal, hernia repair, and some colorectal procedures. His dedication and interest in surgical education is also an asset to our team, and this year Dr. Renton led all of the hands-on Surgical Skills labs for the rotating Med III students. These courses run every eight weeks and teach 3rd year medical students laparoscopic skills, which include modules from the Fundamentals of Laparoscopic Surgery training they will encounter in residency.

Richard Schlanger, MD, PhD, associate professor of clinical surgery, serves as the Chief of Surgical Services at University Hospital East and the Clinical Director of the Comprehensive Wound Center of The Ohio State University. He maintains an extremely busy general surgery clinical practice, with special focus on complex wounds. Dr. Schlanger is a recognized leader in clinical wound care research and is frequently an invited speaker on the national and international level. He participates in the monthly wound care course sponsored in part by the National Healing Corporation, teaching the latest in wound care to physicians, nurses and other health care professionals. This year he has been a leader in the Heal



Ohio movement, to connect all the major hospital systems statewide to achieve best practice. Dr. Schlanger is a team member, along with Dr. Sen and Dr. Gordillo, in linking major university wound research and clinical programs with the CWC at Ohio State. These include the University of Miami (FL), University of Pennsylvania, Stanford University, UCLA, Harvard and Vanderbilt. Additionally, Dr. Schlanger is on the planning committee for the Wound Care Conferences at OSU held each spring. The symposium is a show case of basic science and clinic research done by the top people in the world. He continues to work as a special consult on negative vacuum therapy and pressure ulcers to the Congress of the United States. Dr. Schlanger serves on several corporate boards for wound care product purchasing and evaluation and holds several patents for inventions to help diagnose wounds as well as dressing placement.

### **Minimally Invasive Surgery**

The Center for Minimally Invasive Surgery (CMIS) is a multidisciplinary center dedicated to the achievement of excellence in patient care, clinical training, research and outcomes studies pertaining to the techniques and technology of minimally invasive surgery. The Center strives to expand the ever changing field of surgery and 2010-2011 brought continued expansion of our educational and research endeavors.

### **Research**

At The Ohio State University's Center for Minimally Invasive Surgery (OSU-CMIS), surgeons and researchers are continuously pushing the boundaries of current surgical techniques. Over the past several years, Natural Orifice Transluminal Endoscopic Surgery, or NOTES, the process of performing surgery through naturally existing orifices, thus eliminating the need for external incisions, has been a prevalent topic in clinical research. We continue to focus our efforts on new developments in technology and techniques for NOTES, with the hope that someday common surgical procedures can be totally incisionless.

This year, Dr. Vimal K. Narula performed the first and second transvaginal cholecystectomies in Ohio as part of an investigator-initiated Natural Orifice Transluminal Endoscopic Surgery (NOTES) clinical study. On a Likert satisfaction scale, both patients reported that they are "most satisfied, very happy" with the surgical procedure and would recommend this surgical approach to other women. OSUMC has been selected as a site in a NOTES cholecystectomy multicenter clinical trial sponsored by the Natural Orifice Surgery Consortium for Assessment and Research (NOSCAR). NOSCAR, a non-profit organization formed in July 2005 to further NOTES research, is supported by the American Society for Gastrointestinal Endoscopy (ASGE) and the Society of American Gastrointestinal and Endoscopic Surgeons (SAGES). Enrollment in this study is targeted to begin later this year.

The field of obesity surgery also continues to be a focus. Bradley J. Needleman, MD, director of the OSU Bariatric Surgery Program, continues to follow 12 patients who received laparoscopic greater curvature placcation (LGCP) surgery in 2009 and 2010 as part of a multi-center clinical study to evaluate this new bariatric surgery. LGCP is a restrictive bariatric procedure similar to vertical sleeve gastrectomy (VSG) without the need for gastric resection. In the procedure, the stomach's volume is reduced by dissecting the greater omentum and short gastric vessels, as in VSG, and the greater curvature is imbricated using multiple rows of non-absorbable sutures.



Metabolic disorders, such as diabetes, are some of the fastest growing complications that arise from obesity. Treatment of obesity with surgical intervention often leads to resolution of such metabolic disorders. Dara Schuster, MD, who holds a joint appointment with the Division of Endocrinology, Diabetes and Metabolism and the Division of General and Gastrointestinal Surgery, received a \$525,451 grant from Covidien for a project entitled: “Metabolic Surgery vs. Medical Management for Resolution of Type II Diabetes: A Prospective Group Match Study.” As part of this study, morbidly obese patients with diabetes who choose to undergo Roux-en-Y gastric bypass surgery or who choose best medical management are followed for two years to ascertain whether diabetes improves or resolves as a result of surgical or medical intervention. This study will enroll a total of 120 subjects: 60 in the surgical intervention arm and 60 in the best medical management arm. Enrollment in this study is ongoing.

Finally, Abdulfatah Issak, a medical student who worked with CMIS last summer and was mentored by Alan Harzman, MD, received a \$4,000 grant from the American Society of Colon and Rectal Surgeons (ASCRS) for his project entitled, “Working Against the Camera.” Prior to notification of the ASCRS award, Mr. Issak was awarded a Roessler scholarship for the same project.

### **Education**

This year, CMIS continued to focus a large portion of its educational mission on surgical resident education in addition to continuing medical education (CME) and Non-CME courses for practicing surgeons. In accordance with new guidelines from the American College of Surgeons (ACS) dictating skills training for residents, CMIS along with the Department of Surgery residency training program began to offer weekly surgical skills labs based on various modules included in the ACS surgical skills curriculum for residents. Each week, different levels of post graduate year (PGY) learners attend a two-hour skills lab in either an animate, inanimate or didactic setting taught by an attending surgeon or expert in the area. Sessions vary in topic based on the training level of the learner. Attendance at weekly skills labs are mandatory and have been very well received overall.

In addition to these weekly skills labs, ten CME and non-CME courses were held during July 2010- June 2011 with over 190 participants including practicing surgeons, allied health professionals, surgical fellows and residents. Course topics included minimally invasive hernia surgery including abdominal wall reconstruction, laparoscopic colon surgery, endoluminal treatments for GERD and weight loss, and robotic urologic surgery. Included this year in our CME course offerings was our 11th annual Advances in Minimally Invasive Surgery conference held in Marco Island, Florida co-hosted with Case Western Reserve University Department of Surgery. In attendance were over 45 surgeons, residents, fellows and allied healthcare professionals. This 3-day program offered a comprehensive look at new techniques and technologies related to the most recent advances in minimally invasive surgery and featured a faculty of leading experts in the field. Topics covered will include advances in minimally invasive surgical approaches for: inguinal and ventral hernia repair, abdominal wall reconstruction and component separation, socioeconomic issues, management of surgical complications, difficult cholecystectomies and management of biliary leaks, and single incision laparoscopy.

This year, we also saw continued success of the OSU Allied Health Robotics Training programs. Under the direction of Lynda Jayjohn, nurse manager for robotic surgery, beginner and intermediate/advanced

courses for perioperative team members working in a robotic operating room. Programs are tailored to fit the needs of each program that attends. Key course topics include troubleshooting, flow management, OR efficiency, staffing needs/management and marketing. Sixty eight participants have attended these training programs since July 2010.

Our minimally invasive surgery training program, which is a one-year, dedicated experience in advanced laparoscopic surgery, remains a well sought after position. This year we welcomed two new clinical assistant professors, Dr. John Linn and Dr. Sabrena Noria. Dr. Linn had a very busy clinical year, completing more than 400 advanced laparoscopic surgeries and endoscopies. He participated in a number of research projects during his time at OSU, which lead to presentations at the national level and will lead to future publications. Dr. Linn will be joining NorthShore University Health System in August and his future practice will focus on minimally invasive surgery as well as bariatric surgery. Dr. Noria was also a very active member of the team this year, completing over 400 advanced laparoscopic and endoscopic procedures. In addition to her clinical responsibilities, she participated in research and in multiple CMIS continuing medical education programs and resident skills labs. Dr. Noria's future practice will focus on minimally invasive bariatric surgery.

Additionally, the Center for Minimally Invasive Surgery welcomed Dr. Bradley Zagol, clinical assistant professor of surgery, who completed a one year training program in Advanced Therapeutic Endoscopy and Gastrointestinal Surgery. Dr. Zagol had a very busy clinical year, completing more than 500 advanced endoscopic procedures including ERCP in addition to his surgical case load. He participated in a number of research projects, continuing medical education programs and resident surgical skills labs. Dr. Zagol will be stationed as a staff surgeon at Womack Army Medical Center in Fort Bragg, North Carolina beginning in July 2011.

## Faculty

### **W. Scott Melvin, MD**

Professor of Surgery; Vice Chairman for Academic Affairs, Department of Surgery; Chief, Division of General and Gastrointestinal Surgery; Director, Center for Minimally Invasive Surgery

**BS:** Ohio Northern University, Ada, Oh., 1983

**MD:** Medical College of Ohio, Toledo, Oh., 1987

**Specialty Training:** University of Maryland, College Park, Md.; Ohio Digestive Disease Institute, Columbus, Oh.

**Appointment:** 1993

**Specialty Interests:** Gastrointestinal, hepatobiliary, and pancreatic surgery; advanced laparoscopic techniques

**Research Interests:** Laparoscopic surgery education and training, molecular biology of pancreatic cancer, experimental therapies for pancreatic cancer



*Melvin*



*Arnold*

### **Mark W. Arnold, MD**

Professor of Clinical Surgery; Vice Chairman for Surgical Education, Department of Surgery

**BA:** University of Virginia, Charlottesville, Va., 1979

**MD:** New York University, New York, NY, 1983

**Specialty Training:** Jackson Memorial Hospital, University of Miami Medical Center, Miami, FL; Grant Medical Center, Columbus, Oh.

**Appointment:** 1990

**Specialty Interests:** Colon and rectal surgery

**Research Interests:** Radioimmunoguided antibodies for diagnosis and treatment of colon and rectal cancers



*Ellison*

### **E. Christopher Ellison, MD**

The Robert M. Zollinger Professor of Surgery; Chairman, Department of Surgery; Associate Vice President for Health Sciences and Vice Dean of Clinical Affairs, College of Medicine

**BS:** University of Wisconsin, Madison, Wi., 1972

**MD:** Medical College of Wisconsin, Milwaukee, Wi., 1976

**Specialty Training:** The Ohio State University, Columbus, Oh.

**Appointment:** 1993

**Specialty Interests:** Surgery of the liver, biliary tree, and pancreas

**Research Interests:** Gastrinoma and Zollinger-Ellison syndrome, pancreatic and hepatic cancer

**Alan E. Harzman, MD**

Assistant Professor of Clinical Surgery

**BS:** Vanderbilt University, Nashville, Tn., 1997

**MD:** Washington University, St. Louis, Mo., 2001

**Specialty Training:** Residency in general surgery, University of Texas Southwestern Medical Center, Dallas, Tx.; fellowship in colon and rectal surgery, Baylor University Medical Center, Dallas, Tx.

**Appointment:** 2007

**Specialty Interests:** General surgery, colon and rectal surgery

**Research Interests:** General surgery, colon and rectal surgery



Harzman

**Jeffrey W. Hazey, MD**

Associate Professor of Surgery

**BA:** Miami University, Oxford, Oh., 1987

**MD:** Case Western Reserve University, Cleveland, Oh., 1992

**Specialty Training:** Residency in general surgery, University Hospitals of Cleveland; fellowship in nutrition and surgery research, Case Western Reserve University/Mount Sinai Medical Center; fellowship in advanced laparoscopic and endoscopic surgery, Cleveland Clinic, Cleveland, Oh.

**Appointment:** 2003

**Specialty Interests:** Minimally invasive surgery, advanced endoscopy, endoscopic retrograde cholangiopancreatography

**Research Interests:** Minimally invasive surgery, natural orifice transluminal endoscopic surgery (NOTES), endolumenal treatment options



Hazey

**Syed G. Husain, MD**

Assistant Professor of Clinical Surgery

**MBBS:** Dow Medical College, Karachi, Pakistan

**Specialty Training:** Residency in general surgery, Harlem Hospital Center, New York, NY; fellowship in clinical research, University of Illinois at Chicago, Il.; fellowship in minimally invasive surgery, University of Rochester, Rochester, NY; fellowship in colorectal surgery, Brown University, Providence, RI

**Appointment:** 2008

**Specialty interests:** Minimally invasive colorectal surgery

**Research Interests:** Natural orifice transluminal endoscopic surgery (NOTES)



Husain

**Savita Khanna, PhD**

Assistant Professor of Surgery

**BS:** Meerut University, Meerut, Uttar Pradesh, India, 1984

**MS:** Meerut University, Meerut, Uttar Pradesh, India, 1986

**MPh:** Meerut University, Meerut, Uttar Pradesh, India, 1988

**PhD:** University of Kuopio, Kuopio, Finland, 2000

**Specialty Training:** Research fellowship in molecular and cell biology, University of California, Berkeley

**Appointment:** 2009

**Research Interests:** Tissue injury and repair, neurodegeneration and stroke



Khanna

**John G. Linn, MD**

Clinical Assistant Professor of Surgery

**BS:** University of Notre Dame, Notre Dame, In., 2011

**MD:** Medical College of Wisconsin, Milwaukee, Wi., 2005

**Specialty Training:** General surgery residency, Northwestern University, Chicago, Il.

**Appointment:** 2010

**Specialty Interests:** Advanced laparoscopy, gastrointestinal surgery

**Research Interests:** Advanced laparoscopy, gastrointestinal surgery, surgical education



Linn

**Andrei V. Manilchuk, MD**

Assistant Professor of Clinical Surgery

**MD:** Gorky State Medical Institute, Nizhny Novgorod, Russia, 1984

**Specialty Training:** General surgery and surgical oncology, Nizhny Novgorod Medical Academy and Regional Cancer Center, Nizhny Novgorod, Russia; general surgery, The Ohio State University, Columbus, Oh.

**Appointment:** 2003

**Specialty Interests:** Gastrointestinal and pancreatobiliary surgery



Manilchuk

**Dean J. Mikami, MD**

Assistant Professor of Surgery

**BA:** University of Hawaii, Manoa, Hi., 1991

**MD:** University of Kansas, Kansas City, Ks., 1997

**Specialty Training:** Residency in general surgery and fellowship in minimally invasive surgery, The Ohio State University, Columbus, Oh.

**Appointment:** 2003

**Specialty Interests:** Minimally invasive surgery, bariatric surgery, hernia treatment options

**Research Interests:** Minimally invasive surgery, natural orifice transluminal endoscopic surgery (NOTES)



Mikami

**Peter Muscarella, II, MD**

Associate Professor of Surgery; Director, Surgical Clerkship

**BS:** University of Rochester, Rochester, NY, 1989

**MD:** New York Medical College, Valhalla, NY, 1993

**Specialty Training:** Residency in general surgery, The Ohio State University, Columbus, Oh.

**Appointment:** 2000

**Specialty Interests:** General surgery, endocrine gastrointestinal disease, liver, pancreas

**Research Interests:** Pancreatic cancer, pancreatic neuroendocrine tumors



*Muscarella*

**Vimal K. Narula, MD**

Assistant Professor of Clinical Surgery

**BS:** Marshall University, Huntington, WV, 1995

**MD:** Marshall University, Huntington, WV, 1999

**Specialty Training:** Residency in general surgery, Marshall University; fellowship in minimally invasive surgery and fellowship in advanced therapeutic endoscopy, The Ohio State University, Columbus, Oh.

**Appointment:** 2005

**Specialty Interests:** Minimally invasive surgery, foregut surgery, advanced therapeutic endoscopy

**Research Interests:** Natural orifice transluminal endoscopic surgery (NOTES), robotic surgery



*Narula*

**Sabrena F. Noria, MD**

Clinical Assistant Professor of Surgery

**BS:** University of Toronto, Toronto, Ontario, Canada, 1994

**MD:** University of Toronto, Toronto, Ontario, Canada, 2005

**PhD:** University of Toronto, Toronto, Ontario, Canada, 2001

**Specialty Training:** General surgery residency, University of Toronto

**Appointment:** 2010

**Specialty Interests:** Minimally invasive surgery, bariatric surgery

**Research Interests:** Bariatric surgery



*Noria*

**Bradley J. Needleman, MD**

Associate Professor of Clinical Surgery; Director, Bariatric Surgery Program

**BA:** Vassar College, Poughkeepsie, NY, 1990

**MD:** Mount Sinai School of Medicine, New York, NY, 1994

**Specialty Training:** Residency in general surgery, Washington Hospital Center, Washington, D.C.; fellowship in minimally invasive surgery, The Ohio State University, Columbus, Oh.

**Appointment:** 2000

**Specialty Interests:** Advanced laparoscopic surgery, obesity surgery

**Research Interests:** Minimally invasive surgery, surgical education



*Needleman*



**David Renton, MD**

Assistant Professor of Clinical Surgery

**BS:** Tulane University, New Orleans, La., 1994

**MD:** Louisiana State University, New Orleans, La., 2001

**Specialty Training:** Master of Public Health, Tulane University School of Public Health, New Orleans, La., 1997

**Appointment:** 2009

**Specialty Interests:** Bariatrics, natural orifice transluminal endoscopy surgery (NOTES)

**Research Interests:** Advanced technology



*Renton*

**Sashwati Roy, PhD**

Associate Professor of Surgery

**BS:** Meerut University, Meerut, India, 1984

**MS:** Meerut University, Meerut, India, 1986

**PhD:** University of Kuopio, Kuopio, Finland, 1994

**Appointment:** 2000

**Research Interests:** Antioxidant and redox biology focusing on signal transduction and gene expression



*Roy*

**Richard E. Schlanger, MD, PhD**

Associate Professor of Clinical Surgery; Director, Center of Advanced Wound Management and chief, Surgical Services, University Hospital East

**MD:** Faculté de Médecine, Toulouse, France, 1980

**PhD:** Faculté de Médecine, Toulouse, France, 1982

**Specialty Training:** The Ohio State University, Columbus, Oh.

**Appointment:** 2000

**Specialty Interests:** General surgery, wound healing

**Research Interests:** Wound healing



*Schlanger*

**Chandan K. Sen, PhD**

Professor of Surgery; Vice Chairman for Research, Department of Surgery; Associate Dean for Translational and Applied Research, College of Medicine; Deputy Director, Davis Heart and Lung Research Institute; Director, DNA Microarray and Genetics Facility, Davis Heart and Lung Research Institute; Professor, Department of Molecular and Cellular Biochemistry

**BS:** Calcutta University, Calcutta, India, 1987

**MS:** Calcutta University, Calcutta, India, 1990

**PhD:** University of Kuopio, Kuopio, Finland, 1994

**Appointment:** 2000

**Research Interests:** Wound healing, redox control of biological events, role of oxygen- and nitrogen-derived species in signal transduction and gene expression



*Sen*



**Eric T. Volckmann, MD**

Clinical Assistant Professor of Surgery

**BS:** University of North Carolina, Chapel Hill, NC, 1998

**MD:** University of North Carolina School of Medicine, Chapel Hill, NC, 2002

**Specialty Training:** McGaw Medical Center, Northwestern University, Chicago, Il.

**Appointment:** 2009

**Specialty Interests:** Minimally invasive gastrointestinal and bariatric surgery

**Research Interests:** Outcomes in minimally invasive surgery, natural orifice transluminal surgery, surgical device development



*Volckmann*

**Bradley R. Zagol, MD**

Clinical Assistant Professor of Surgery

**BS:** United States Military Academy, West Point, NY, 1998

**MD:** Temple University School of Medicine, Philadelphia, Pa., 2002

**Specialty Training:** General surgery residency, Walter Reed Army Medical Center, Washington, DC; Chief of general surgery, Reynolds Army Community Hospital, Fort Sill, Ok.

**Appointment:** 2010

**Specialty Interests:** Minimally invasive surgery, bariatric surgery

**Research Interests:** Bariatric surgery



*Zagol*

## Clinical Faculty

**Robert E. Falcone, MD**

Clinical Professor of Surgery

**BA:** Kent State University, Kent, Oh., 1973

**MD:** The Ohio State University, Columbus, Oh., 1976

**Jeffrey T. Innes, MD**

Clinical Assistant Professor of Surgery

**BS:** University of California, Davis, Ca., 1976

**MD:** University of California, Davis, Ca., 1980

**Bruce A. Kerner, MD**

Clinical Assistant Professor of Surgery

**BS:** University of Tampa, Tampa, Fl., 1980

**MD:** Chicago Medical School, Chicago, Il., 1984

**Richard C. Rooney, MD**

Clinical Assistant Professor of Surgery

**BS:** University of Cincinnati, Cincinnati, Oh., 1964

**MD:** University of Cincinnati, Cincinnati, Oh., 1967

**Thomas T. Vogel, M.D., PhD**

Clinical Assistant Professor of Surgery

**BA:** Holy Cross College, 1955

**PhD:** The Ohio State University, Columbus, Oh., 1962

**MD:** Georgetown University, Washington, DC, 1965

## Resident Staff

**Yasser M. Ads, MD**

PGY-1

**BS:** University of Michigan, Ann Arbor, Mi., 2005

**MD:** University of Michigan Medical School, Ann Arbor, Mi., 2010

**Catherine E. Beck, MD**

PGY-3

**BS:** University of Wisconsin, Madison, Wi., 2003

**MD:** The Ohio State University, Columbus, Oh., 2008

**Ellen Carraro, MD**

PGY-2

**BA:** Northwestern University, Evanston, Il., 2005

**MD:** Ohio State University, Columbus, Oh., 2009

**Amy L. Collins, MD, MS**

Master of Medical Science Program

**BS:** Florida Atlantic University, Boca Raton, Fl., 2001

**MD:** University of South Florida, Tampa, Fl., 2007

**MS:** The Ohio State University, Columbus, Oh., 2010

**Andrew O. Crockett, MD**

PGY-5

**BS:** University of Utah, Salt Lake City, Ut., 2001

**MD:** University of Utah, Salt Lake City, Ut., 2005

**H. Tracy Davido, MD**

PGY-5

**BA:** Cleveland State University, Cleveland, Oh., 1993

**MD:** University of Pittsburgh, Pittsburgh, Pa., 2002

**Mary E. Dillhoff, MD, MS**

PGY-4

**BS:** University of Cincinnati, Cincinnati, Oh., 2001

**MD:** University of Cincinnati, Cincinnati, Oh., 2005

**MS:** The Ohio State University, Columbus, Oh., 2009

**Joseph M. Drosdeck, MD**

PGY-1

**BA:** University of Wisconsin-Milwaukee, Milwaukee, Wi., 2004

**MD:** University of Wisconsin, Madison, Wi., 2010

**Jeffrey L. Eakin, MD**

PGY-5

**BA:** Miami University, Oxford, Oh., 2001

**MD:** The Ohio State University, Columbus, Oh., 2006

**Kenechi K. Ebede, MD**

PGY-2

**BS:** Rutgers University, New Brunswick, NJ, 2002

**MD:** University of Pennsylvania, Philadelphia, Pa., 2009

**David C. Evans, MD**

PGY-4

**BS:** Duke University, Durham, NC, 2002

**MD:** Duke University, Durham, NC, 2006

**Meghan R. Forster, MD, MS**

PGY-5

**BA:** DePauw University, Greencastle, In., 1998

**MD:** University of Cincinnati, Cincinnati, Oh., 2004

**MS:** The Ohio State University, Columbus, Oh., 2008

**Yuanyuan Gu, MD, PhD**

PGY-2

**MD:** Nanjing University, China, 2005

**PhD:** University of Cincinnati, Cincinnati, Oh., 2009

**Kristan D. Guenterberg, MD, MS**

PGY-4

**BS:** Walla Walla College, College Place, Wa., 2001

**MD:** Loma Linda University, Loma Linda, Ca., 2005

**MS:** The Ohio State University, Columbus, Oh., 2009

**Ioannis S. Hatzaras, MD, MPH**

PGY-5

**MD:** Aristotle University of Thessaloniki, Thessaloniki, Greece, 2002**MPH:** The Ohio State University, Columbus, Oh., 2010**Lisa M. Haubert, MD, MS**

PGY-4

**BS:** University of Akron, Akron, Oh., 2002**MD:** The Ohio State University, Columbus, Oh., 2006**MS:** The Ohio State University, Columbus, Oh., 2010**Russell G. Hendrick, Jr, MD, MS**

PGY-3

**BS:** Louisiana State University, Baton Rouge, La., 2001**MS:** Louisiana State University, Baton Rouge, La., 2003**MD:** Louisiana State University, New Orleans, La., 2008**Jon C. Henry, MD**

Master of Medical Science Program

**BS:** The Ohio State University, Columbus, Oh., 2004**MD:** The Ohio State University, Columbus, Oh., 2008**Justin T. Huntington, MD**

PGY-1

**BA:** Miami University, Oxford, Oh., 2006**MD:** The Ohio State University, Columbus, Oh., 2010**Iyore A. James, MD, MALD, MS**

PGY-4

**BS:** University of Massachusetts, Worcester, Ma., 2001**MD:** Tufts University, Boston, Ma., 2006**MALD:** Tufts University, Boston, Ma., 2006**MS:** The Ohio State University, Columbus, Oh., 2010**Michelle Y. Kincaid, MD, MS**

PGY-3

**BA:** Johns Hopkins University, Baltimore, Md., 2002**MD:** University of Maryland, Baltimore, Md., 2007**MS:** The Ohio State University, Columbus, Oh., 2010**Maureen E. Kuhrt, MD, MS**

PGY-3

**BA:** Cornell University, Ithaca, NY, 2003**MD:** University of Connecticut, Farmington, Ct., 2007**MS:** The Ohio State University, Columbus, Oh., 2010

**Nicholas V. Latchana, MD**

PGY-1

**BS:** University of Western Ontario, London, Ontario, Canada, 2006

**MD:** Albany Medical College, Albany, NY, 2010

**Timothy Lautenschlager, MD**

PGY-1

**MD:** Philipps University, Marbury, Germany, 2006

**Eric A. Luedke, MD**

Master of Medical Science Program

**BS:** Marquette University, Milwaukee, Wi., 2003

**MD:** Medical College of Wisconsin, Milwaukee, Wi., 2007

**Sara E. Martin del Campo, MD**

PGY-2

**BS:** Indiana University, Bloomington, In., 2005

**MD:** University of Iowa, Iowa City, Ia., 2009

**Mika A. B. Matthews, MD**

PGY-2

**BS:** University of Michigan, Ann Arbor, Mi., 2005

**MD:** Morehouse School of Medicine, Atlanta, Ga., 2009

**Targhee J. Morris, MD**

PGY-1

**BA:** Brigham Young University, Provo, Ut., 2006

**MD:** University of South Dakota, Vermillion, SD, 2010

**Theodore W. Nagel, MD**

PGY-3

**BA:** St. Olaf College, Northfield, Mn., 2004

**MD:** Northwestern University, Evanston, Il., 2008

**Samiha Nasser, MD**

PGY-1

**BA:** University of Kentucky, Lexington, Ky., 2005

**MD:** University of Louisville, Louisville, Ky., 2010

**Peter N. Nau, MD, MS**

PGY-4

**BS:** St. Olaf College, Northfield, Mn., 2001

**MD:** University of Iowa, Iowa City, Ia., 2006

**MS:** The Ohio State University, Columbus, Oh., 2010

**Abhishek P. Patel, MD**

PGY-1

**BS:** Saint Louis University, Saint Louis, Mo., 2006**MD:** University of Missouri, Columbia, Mo., 2010**Laura A. Peterson, MD**

Master of Medical Science Program

**BS:** University of Wisconsin, Madison, Wi., 2004**MD:** University of Wisconsin, Madison, Wi., 2008**Thomas A. Pham, MD, MS**

Master of Medical Science Program

**BS:** The Ohio State University, Columbus, Oh., 2003**MD:** University of Cincinnati, Cincinnati, Oh., 2007**MS:** The Ohio State University, Columbus, Oh., 2011**Robert L. Plews, MD**

PGY-1

**BS:** University of South Florida, Tampa, FL., 2006**MD:** University of South Florida, Tampa, FL., 2010**Ricardo O. Quarrie, MD, MS**

Master of Medical Science Program

**BS:** Florida State University, Tallahassee, FL., 2003**MD:** The Ohio State University, Columbus, Oh., 2007**MS:** The Ohio State University, Columbus, Oh., 2011**Andrei Radulescu, MD, PhD**

PGY-1

**MD:** Universitatea de Medicinas si Farmacie Victor Babes, Timisoara, Romania, 2002**PhD:** Universitatea de Medicinas si Farmacie Victor Babes, Timisoara, Romania, 2005**Terrence M. Rager, MD, MS**

PGY-1

**BS:** Pennsylvania State University, University Park, Pa., 2002**MS:** Pennsylvania State University, Hershey, Pa., 2006**MD:** Pennsylvania State University, Hershey, Pa., 2010**Geoffrey J. Roelant, MD, MS**

PGY-3

**BS:** Michigan Technological University, Houghton, Mi., 1999**MS:** Michigan Technological University, Houghton, Mi., 2002**MD:** University of Maryland, College Park, Md., 2008

**Jennifer S. Schwartz, MD**

PGY-2

**BS:** Vanderbilt University, Nashville, Tn., 2005

**MD:** University of New York at Syracuse College of Medicine, Syracuse, NY, 2009

**Nilay R. Shah, MD**

PGY-2

**BS:** M. P. Shah University, Jamnagar, Gujarat, India, 2006

**MD:** M. P. Shah University, Jamnagar, Gujarat, India, 2006

**Tyler C. Spata, MD**

PGY-3

**BA:** University of Texas, Austin, Tx., 2003

**MD:** University of Texas, Austin, Tx., 2008

**Rachael C. Sullivan, MD**

PGY-1

**BS:** University of Toledo, Toledo, Oh., 2006

**MD:** The Ohio State University, Columbus, Oh., 2010

**Alicia C. Thomas, MD, MS**

PGY-4

**BS:** High Point University, High Point, NC, 2002

**MD:** University of North Carolina, Chapel Hill, NC, 2006

**MS:** The Ohio State University, Columbus, Oh., 2010

**Mark R. Wendling, MD**

PGY-2

**BS:** Lawrence University, Appleton, Wi., 2004

**MD:** Medical College of Wisconsin, Milwaukee, Wi., 2009

**Jonathan R. Wisler, MD**

Master of Medical Science Program

**BA:** Miami University, Oxford, Oh., 2004

**MD:** University of Cincinnati, Cincinnati, Oh., 2008



## Mission

The Division of General and Gastrointestinal Surgery is dedicated to the achievement of excellence in patient care, medical education, clinical training, and basic science and clinical research.

## Research Programs

- Wound angiogenesis and healing
- Cardiac remodeling
- Vitamin E and neurodegeneration
- Clinical wound healing
- Cytomegalovirus infections and bacterial sepsis
- Gene therapy and the effects of early genetic changes in pancreatic cancer
- Minimally invasive surgical techniques

## Accomplishments in Research

- Faculty members in the division published 123 scholarly articles, abstracts, and chapters.
- Dr. Vimal Narula performed the first transvaginal cholecystectomy in central Ohio for the Center for Minimally Invasive Surgery research project Single Incision Transvaginal Cholecystectomy, Banerjee A, Hazey JW, Renton DB, Zagol B, Melvin WS, Narula VK.
- Received a \$10,000 seed grant from the Office of International Affairs OSU Gateway Program to establish a collaborative relationship between our Center for Minimally Invasive Surgery and the First Affiliated Hospital, Wenzhou Medical College in Wenzhou, China.

## Active Research Grants

**Harzman AE.** Working against the camera. Am Soc of Colon and Rectal Surgeons. September 2010 – February 2011, \$4,000.00. Principal Investigator.

**Hazey JW.** Feasibility of diagnostic transluminal endoscopic peritoneoscopy for abdominal insufflation, adhesiolysis and trocar placement in patients who require laparoscopic access. NOSCART (Natural Orifice Surgery Consortium for Assessment and Research). August 2008 – present, \$41,250. Principal Investigator

**Hazey JW.** Diagnostic transluminal endoscopic peritoneoscopy. Ethicon, Inc., January 9, 2009 – April 30, 2011, \$3,913.

**Hazey JW.** Human clinical trial of diagnostic laparoscopy compared to diagnostic transgastric endoscopic peritoneoscopy for staging of pancreatic and esophageal cancer. Natural Orifice Surgery Consortium for Assessment, February 1, 2008 – January 3, 2010, \$40,000.

**Hazey JW.** Endolumenal instrumentation-trocar study. Stryker Endoscopy. March 2007 – present, \$40,500. Principal Investigator.

**Hazey JW, Melvin WS.** Transgastric bacterial contamination of the abdomen. Stryker Endoscopy, June 1, 2006 – September 1, 2010, \$35,000.

**Khanna S.** Brain injury and repair. OSU College of Medicine Research Investment Fund (RIF). November 2010 – November 2011, \$100,000. Principal Investigator.

**Khanna S, Rink C..** The Janus Faces of glutamate: the glucose- and oxygen- dependent role reversal from neurotoxin to neuroprotectant. OSU Center for Clinical and Translational Science (CCTS). December 2009 – November 2010, \$25,000. Principal Investigator.

**Khanna S.** CCTS NCTMP Matching dissemination funds. OSU Center for Clinical and Translational Science (CCTS). May 2010 – September 2010, \$4,250. Principal Investigator.

**Melvin WS.** Skill retention and retraining using the da Vinci robot. Akron General Medical Center, May 1, 2009 – May 31, 2010, \$21,000.

**Melvin WS, Mikami DJ.** The evaluation of the Sightline ColonoSight System. Stryker Corp., November 14, 2005 – August 31, 2010, \$6,500.

**Muscarella P.** A phase 2, double-blind, placebo-controlled, multicenter adjuvant trial of the efficacy, immunogenicity, and safety of GI-4000. GlobeImmune, January 24, 2007 – December 31, 2010, \$127,150.

**Narula VK, Hazey JW.** Rebound hernia repair device trial. Minnesota Medical Development, Inc. June 2009 – December 2013, \$5,500.

**Narula VK.** LINX reflux management system. Torax Medical, Inc. December 2008 – December 2012, \$52,778. Co-Investigator.

**Narula VK.** Evaluation of postoperative pain following laparoscopic hernia repair: a prospective, randomized comparison to evaluate the incidence of postoperative pain associated with absorbable fixation Absorba. Covidien. \$11,250. Principal Investigator.

**Rink C.** Therapeutic properties of a proprietary, natural herbal extract NM101109. NutrimiR LLC, a OSU Technology Commercialization Company. January 2010, \$12,500. Principal Investigator.

**Rink C.** Pial collateral recruitment and remodeling in acute ischemic stroke.” CCTS Novel Clinical and Translational Methodologies Program Pilot Grant. May 2010 – August 2010, \$4,250. Principal Investigator.

**Roy S.** Vitamin E neuroprotection: Novel molecular mechanisms. January 2008 – December 2011, \$1,050,000. Co-Investigator

**Roy S.** Porcine burn study. January 2008 – January 2011, \$150,000. Principal Investigator.

**Roy S.** Porcine burn study. January 2008 – January 2011, \$150,000. Principal Investigator.

**Roy S.** Modifiers of wound inflammation. August 2007 – July 2010, \$250,000. Principal Investigator.

**Sen C.** Vitamin E neuroprotection: Novel molecular mechanisms. January 2008 – December 2011, \$525,000. Principal Investigator.

**Roy S, Gordillo GM, Parinandi NL, Sen CK.** Mechanisms underlying impaired diabetic wound healing. National Institute of Diabetes and Digestive and Kidney Diseases, April 1, 2008 – January 31, 2012, \$255,000.

**Roy S, Khanna S.** Porcine burn study. Carotech, January 2, 2008 – January 31, 2011, \$150,000.

**Sen C, Roy S.** Mechanisms underlying impaired diabetic wound healing. April 2008 – January 2012, \$600,000.

**Sen CK, Askwith CC, Parinandi NL, Roy S.** Vitamin E neuroprotection: novel molecular mechanisms. National Institute of Neurological Disorders and Stroke, January 1, 2008 – December 31, 2011, \$236,250.

**Sen CK, Bergdall-Costell VK.** Tissue oxygenation and wound angiogenesis. National Institute of General Medical Sciences, August 1, 2007 – May 31, 2011, \$ 250,800.

**Sen C.** Tissue oxygenation and wound angiogenesis. August 2007 – May 2011, \$792,000. Principal Investigator.

**Sen CK, Gordillo GM.** Efficacy of natural vitamin E tocotrienol on the treatment of scars. Carotech, February 1, 2008 – January 31, 2011, \$276,000.

**Sen CK, Gordillo GM.** Use of dermaPACE (Pulsed Acoustic Cellular Expression) device in conjunction with standard of care in the treatment of diabetic foot ulcers. Sanuwave, Inc., March 3, 2009 – March 31, 2010, \$1,530.

## Clinical Programs

- Comprehensive gastrointestinal surgery services
- Minimally invasive surgery
- Bariatric surgery
- Benign and malignant esophageal disorders
- Gastroesophageal reflux
- Hepatobiliary and pancreatic cancer
- Treatment of benign and malignant diseases of the colon and rectum
- Wound care

## Accomplishments in Clinical Care

- Attending faculty in the division performed 21,928 surgical procedures and received 19,578 outpatient visits.

## Clinical Statistics

OR Procedures	21,928
Outpatient Visits	19,578
Admissions	2,926
Patient Days	17,547
Average Length of Stay (Days)	5.58

## Educational Programs

- Fully-accredited residency in general surgery
- One-year clinical assistant professorship in minimally invasive surgery
- One-year clinical assistant professorship in advanced therapeutic endoscopy
- Honors program in surgery for fourth-year medical students
- Four-week subinternship in general surgery
- Six-week clerkship in general surgery
- Master of medical science program

## Accomplishments in Education

- Completion of the general surgery residency by Dr. Andrew Crockett, Dr. H. Tracey Davido, Dr. Jeffrey Eakin, Dr. Meghan Forster and Dr. Ioannis Hatzaras.
- Completion of the clinical assistant professorship in minimally invasive surgery by Dr. John Linn and Dr. Sabrena Noria.
- Completion of the clinical assistant professorship in advanced therapeutic endoscopic surgery by Dr. Bradley Zagol.
- Faculty have trained over 190 surgeons, residents, students and allied healthcare professionals from throughout the United States and international community in educational programs offered through the Center for Minimally Invasive Surgery.
- Established an educational exchange program with representatives from Wenzhou Medical College in Wenzhou, China.

## Publications

Christoforidis GA, **Rink C**, Kontzialis MS, Mohammad Y, Koch RM, Abduljalil AM, Bergdall VK, **Roy S**, **Khanna S**, Slivka AP, Knopp MV, **Sen CK**. 2010. An endovascular canine middle cerebral artery occlusion model for the study of leptomeningeal collateral recruitment. *Invest Radiol* (September 17)

Deiuliis J, Shah Z, **Shah N**, **Needleman B**, **Mikami D**, **Narula V**, **Perry K**, **Hazey J**, Kampfrath T, Kollengode M, Sun Q, Satoskar AR, Lumeng C, **Moffatt-Bruce S**, Rajagopalan S. 2011. Visceral adipose inflammation in obesity is associated with critical alterations in Tregulatory cell numbers. *PLoS One*. Vol. 6. : e16376.

Dipetrillo T, Pricolo V, Lagares-Garcia J, Vrees M, Klipfel A, Cataldo T, Sikov W, McNulty B, Shipley J, Anderson E, Khurshid H, Oconnor B, Oldenburg NB, Radie-Keane K, **Husain S**, Safran H. Neoadjuvant Bevacizumab, Oxaliplatin, 5-Fluorouracil, and radiation for rectal cancer. *Int J Radiat Oncol Biol Phys* 2010 Oct 13.

Gareau DS, Truffer F, **Perry K**, **Pham T**, Enestvedt CK, Dolan J, Hunter JG, Jacques SL. 2010. Optical fiber probe spectroscopy for laparoscopic monitoring of tissue oxygenation during esophagectomies. *Journal of Biomedical Optics*. Vol. 15. (December): 061712.

Gnyawali SC, **Roy S**, Driggs J, **Khanna S**, Ryan T, **Sen CK**. 2010. High-frequency high-resolution echocardiography: first evidence on non-invasive repeated measure of myocardial strain, contractility, and mitral regurgitation in the ischemia-reperfused murine heart. *J Vis Exp*. Vol. 41 (July 9).

Lappalainen Z, Lappalainen J, Laaksonen DE, Oksala KJ, **Khanna S**, **Sen CK**, Atalay M. 2010. Acute exercise and thioredoxin-1 in rat brain, and alpha-lipoic acid and thioredoxin-interacting protein response, in diabetes. *Int J Sport Nutr Exerc Metab*. Vol. 20, no. 3. (June): 206-215.

Lappalainen J, Lappalainen Z, Oksala NK, Laaksonen DE, **Khanna S**, **Sen CK**. 2010. Atalay M. Alpha-lipoic acid does not alter stress protein response to acute exercise in diabetic brain. *Cell Biochem Funct* (October 29)

**Linn J**, **Mikami DJ**. 2011. Parastomal Hernia Repair. *Journal of Long-Term Effects of Medical Implants*. Current State of Hernia Repairs. Edited by Kenrick Murayama MD (Formally Accepted)

**Memark VC**, Anderson JB, **Nau PN**, **Shah N**, **Needleman BJ**, **Mikami DJ**, **Melvin WS**, **Hazey JW**. 2011. Transgastric endoscopic peritoneoscopy does not lead to increased risk of infectious complications. *Surgical Endoscopy* (February 7)

**Nau P**, Anderson J, Yuh B, **Muscarella P Jr**, **Ellison EC**, Happel L, **Narula VK**, **Melvin WS**, **Hazey JW**. 2010. Diagnostic transgastric endoscopic peritoneoscopy: extension of the initial human trial for staging of pancreatic head masses. *Surg Endosc*. Vol. 24, no. 6. (June): 1440-1446 (IF: 1.969)

**Nau P, Demyttenaere S, Muscarella P, Narula VK, Hazey JW, Ellison EC, Melvin WS.** 2010. Pheochromocytoma does not increase risk in laparoscopic adrenalectomy. *Surg Endosc*. Vol. 24, no. 11. (November): 2760-2764. (IF: 1.969)

**Nau P, Ellison EC, Muscarella P Jr, Mikami DJ, Narula VK, Needleman B, Melvin WS, Hazey JW.** 2010. A review of 130 humans enrolled in transgastric NOTES protocols at a single institution. *Surgical Endoscopy*. (October 26)

Nguyen NT, Dakin G, **Needleman B**, Pomp A, **Mikami DJ**, Provost DA, Scott DJ, Jones DB, Gallagher S, Gagner M, Murr M. 2010. Effect of staple height on gastrojejunostomy during laparoscopic gastric bypass: a multicenter prospective randomized trial. *Surgery For Obesity And Related Diseases: Official Journal Of The American Society For Bariatric Surgery*. Vol. 6, no. 5. (September 1): 477

**Noria S, Mikami DJ.** 2011. Transoral surgery for morbid obesity. *World Journal of Gastrointestinal Endoscopy*. (Formally Accepted)

**Pham TH, Perry KA,** Chang EY, Diggs BS, Dolan JP, Hunter JG, Sheppard BC. 2011. Increased institutional case volume reduces inpatient morbidity and mortality after paraesophageal hernia repair. *Journal of Gastrointestinal Surgery*. (Formally Accepted)

**Pham TH, Perry KA,** Enestvedt CK, Gareau DS, Dolan JP, Sheppard BC, Jacques SL, Hunter JG. 2011. Decreased gastric conduit perfusion measured by optical fiber spectroscopy during minimally invasive esophagectomy is associated with subsequent anastomotic complications. *Annals of Thoracic Surgery*. Vol. 91. : 380-385

**Renton, D, Melvin WS.** Laparoscopic ventral hernia repair. *World Journal of Surgery*. Published online March 22, 2011

**Rink C, Khanna S.** 2010. MicroRNA in ischemic stroke etiology and pathology. *Physiol Genomics* (September 14)

**Rink C, Khanna S.** 2010. Significance of brain tissue oxygenation and the arachidonic acid cascade in stroke. *Antioxid Redox Signal* (August 2)

**Schuster DP,** Teodorescu M, **Mikami DJ,** Foreman K, Rogers P, **Needleman BJ.** 2010. Effect of bariatric surgery on normal and abnormal renal function. *Surgical Obesity and Related Diseases*. (December 4)

**Sen CK, Rink C, Khanna S.** 2010. Palm oil-derived natural vitamin E alpha-tocotrienol in brain health and disease. *J Am Coll Nutr*. Vol. 29, no. 3 Suppl. (June): 314S-323S.

**Shah NR, Mikami DJ, Cook C, Manilchuk A, Hodges C, Memark VR, Volckmann ET, Hall CR, Steinberg S, Needleman B, Hazey JW, Melvin WS, Narula VK.** 2011. A comparison of outcomes between open and laparoscopic surgical repair of recurrent inguinal hernias. *Surgical Endoscopy*. (February 7)



Stefanidis D, Hope WW, Kohn GP, Reardon PR, Richardson WS, Fanelli RD; SAGES Guidelines Committee. Guidelines for surgical treatment of gastroesophageal reflux disease. *Surg Endosc*. 2010 Nov; 24(11): 2647-69. 2010 Aug 20. [Epub ahead of print]

Sun X, Wang X, Wang GD, Xia Y, Liu S, Qu M, **Needleman BJ, Mikami DJ, Melvin WS**, Bohn LM, Ueno R, Wood JD. 2011. Lubiprostone reverses the inhibitory action of morphine on mucosal secretion in human small intestine. *Digestive Disease Science*. Vol. 2, no. 56. (February 23): 330-8

Wang LS, **Arnold M**, Huang YW, Sardo C, Seguin C, Martin E, Huang TH, Riedl K, Schwartz S, Frankel W, Pearl D, Xu Y, Winston J III, Yang GY, Stoner G. Modulation of genetic and epigenetic biomarkers of colorectal cancer in humans by black raspberries: A phase I pilot study. *Clin Cancer Res*. 2011 Feb 1;17(3):598-610. Epub 2010 Dec 1

**Zagol B, Mikami DJ**. 2011. Advances in transoral fundoplication for oesophageal reflux. *Digestive and Liver Disease*. (March 5)

## Abstracts

**Banerjee A, Melvin WS, Perry KA**. 2011. Radiofrequency energy delivery to the lower esophageal sphincter reduces esophageal acid exposure and improves GERD symptoms: A meta-analysis [Abstract] *Gastroenterology*

**Banerjee A, Narula VK, Mikami DJ**. Laparoscopic ventral hernia repair – Does primary repair in addition to placement of mesh decrease recurrence? *Surg Endosc* 2011 25:S191-S222. Presented at SAGES 2011, San Antonio, TX, March 30-April 2, 2011

**Banerjee A, Hazey JW, Renton DB, Rohl J, Zagol B, Melvin WS, Narula VK**. Single incision transvaginal cholecystectomy. *Surg Endosc* 2011 25:S223-S234. Presented at SAGES 2011, San Antonio, TX, March 30-April 2, 2011

Everhart J, **Linn JG, Perry KA, Melvin WS**. 2011. Reduced port Nissen fundoplication versus the standard laparoscopic approach: A prospective evaluation [Abstract]. *Official Program, 2011 Annual Meeting of the Society of American Gastrointestinal and Endoscopic Surgeons*

**Linn J**, Ahmad S, Chan A, **Muscarella PM, Melvin WS, Perry KA**. 2011. Efficacy and durability of laparoscopic Heller myotomy: Patient symptoms and satisfaction at long term follow-up (formally accepted)

**Linn JG, Perry KA, Melvin WS**. 2011. Reduced port Nissen fundoplication using a single incision multiport access device with flexible instrumentation [Abstract]. *Surgical Endoscopy*

**Linn JG, Perry KA, Melvin WS.** Novel technique for reduced incision laparoscopic Nissen fundoplication using a single incision multiport access device with flexible instrumentation. *Surg Endosc* 2011 25:S223-S234. Presented at SAGES 2011, San Antonio, TX, March 30-April 2, 2011

**Perry KA, Eakin JL, Linn JG, Onders RP, Velanovich V, Melvin WS.** Early experience with laparoscopic Nissen fundoplication for recurrent GERD after transoral incisionless fundoplication. *Surg Endosc* 2011 25:S191-S222. Presented at SAGES 2011, San Antonio, TX, March 30-April 2, 2011

Roth JS, **Hazey JW**, Davenport D, **Narula VK**, Dettorre R, **Banerjee A**, Cavatassi W, Albright E. A prospective randomized trial comparing the rebound hernia repair device and lightweight mesh for laparoscopic inguinal hernia: An Interim Analysis. Poster Abstract. SAGES 2011

Teodorescu M, **Needleman B**, Foreman K, **Mikami D**, **Schuster DP**. Resumption of diabetes medications with changes in eating patterns after the immediate post-operative period following Roux-en-Y gastric bypass. Obesity Surgery A-367-0019-00484, 2011 (IFSO 2011)

## Book Chapters

Atalay M., Larson DE, **Khanna S**, Hänninen O, and **Sen CK**. 2010. Oxidative stress induced by physical exercise. In *Natural Antioxidants and Food Quality in Atherosclerosis and Cancer Prevention*. Edited by J. T. Kumpulainen and J. T. Salonen. [unspecified]: The Royal Society of Chemistry. 36-40

Cataldo T, **Husain S**. Limitations of Anal Physiology Testing. In: Whitlow CW, Beck DE, Margolin DA, Hicks TC, Timmcke AE, eds. *Improved Outcomes in Colon and Rectal Surgery*. Colchester, UK: Informa UK; 2010

**Hall CR, Needleman BJ**. 2010. Bariatric surgery: A primer for the obstetrician. In *Obesity and Pregnancy*. Edited by Deborah Conoway, M.D., New York, USA: \* (Unspecified)

Larson DE, Atalay M., **Khanna S**, and **Sen CK**. 2010. Exercise and oxidative stress in diabetes mellitus. In *Natural Antioxidants and Food Quality in Atherosclerosis and Cancer Prevention*. Edited by J. T. Kumpulainen and J. T. Salonen. [unspecified]: The Royal Society of Chemistry. 22-26

**Linn JG, Mikami DJ**. "Endoluminal treatments for morbid obesity." In: Goldblatt MI, ed. *Clinical Review of Bariatric Surgery*. In preparation 2010

**Linn J, Mikami DJ**. 2011. Recurrent incisional hernia repair. In *SAGES Manual of Hernia Repair*. Edited by Dr. Brian Jacob and Dr. Bruce Ramshaw. Baton Rouge, La., USA: Springer (Formally Accepted)

**Mikami DJ, Beery P, Ellison EC**. 2010. Surgery in the pregnant patient. In *Sabiston Textbook of Surgery*. New York, NY: Saunders

**Perry KA.** 2011. Principles of minimally invasive surgery. In *Rush Review of Surgery*. 5th ed. Philadelphia, PA, USA: Saunders (Formally Accepted)

**Perry KA, Melvin WS.** 2011. Paraesophageal hernia – open repair. In *Mastery of Surgery*. 6th ed. Edited by Fischer JE, Bland KI. Philadelphia, Pa., USA: Lippencott Williams & Wilkins (Formally Accepted)

**Perry KA, Melvin WS.** 2011. Endoscopic antireflux repair - esophyx. In *Master Techniques in General Surgery: Foregut Surgery*. Edited by Nussbaum M, Luketich J. Philadelphia, Pa., USA: Lippwncott, Williams, and Wilkins (Unspecified)

**Perry KA,** Hunter JG. 2010. Management of esophageal cancer. In *Minimally Invasive Cancer Management*. 2nd ed. Edited by Green FL, Henniford BT. New York, NY, USA: Springer. 88-95

## Poster Presentations

Box D, **Shah N**, Mapa B, Nagel R, Way D, Dettorre R, **Harzman AE**. Self-guided video review of performance does not improve learning in basic simulated tasks. *Surg Endosc* 2011 25:S241-S372. Presented at SAGES 2011, San Antonio, Tx., March 30-April 2, 2011

Everhart J, **Linn JG, Perry KA, Melvin WS**. Reduced port laparoscopic Nissen fundoplication versus the standard laparoscopic approach: A prospective evaluation. *Surg Endosc* 2011 25:S241-S371. Presented at SAGES 2011, San Antonio, Tx., March 30-April 2, 2011

**Linn JG**, Chan AN, Ahmad S, **Muscarella P, Melvin WS, Perry KA**. Efficacy and durability of laparoscopic Heller myotomy: Patient symptoms and satisfaction at long-term follow up. The Society for Surgery of the Alimentary Tract (SSAT) 52nd Annual Meeting, McCormick Place, Chicago, Il., May 6-10, 2011

**Banerjee A, Melvin WS**, Naber SJ, **Perry KA**. Radiofrequency energy delivery to the lower esophageal sphincter reduces esophageal acid exposure and improves GERD symptoms: A meta-analysis. The Society for Surgery of the Alimentary Tract (SSAT) 52nd Annual Meeting, McCormick Place, Chicago, Il., May 6-10, 2011

Roth JS, **Hazey J**, Davenport D, **Narula V**, Dettorre R, **Banerjee A**, Cavatassi W, Albright E. A Prospective Randomized Trial Comparing the Rebound Hernia Repair Device and Lightweight Mesh for Laparoscopic Inguinal Hernia: An Interim Analysis. *Surg Endosc* 2011 25:S241-S372. Presented at SAGES 2011, San Antonio, Tx., March 30-April 2, 2011

**Schlanger, R**. Diabetes and Wound care NEOCOM Grand Rounds Internal Medicine: Wound care for non surgeons OB/GYN: wound healing. Wound Healing Society, Dallas, Tx., April 14-20, 2011 Cancer and Wound Care Heal Ohio, November 2010

**Schuster DP**, Teodorescu M, Foreman K, **Mikami D**, **Needleman BJ**. Close monitoring and rapid medication titration is necessary for T2DM subjects after RYGB. Second World Congress for Interventional Therapies for Type 2 Diabetes. Poster #48, March 28, 2011

Teodorescu M, Kramer D, **Needleman BJ**, Schuster DP. Bariatric surgery candidates: severity and complexity of mental health status. Obesity Surg 20(\*):825814-Poster, 2010 (IFSO 2010)

Teodorescu M, Kramer D, **Needleman BJ**, Schuster DP. Predicting bariatric surgery outcomes based on psychological and behavioral status. Obesity Surg 20(\*):825932-Poster, 2010 (IFSO 2010)

Teodorescu M, **Needleman B**, **Banerjee A**, Foreman K, **Mikami D**, Schuster DP. Is dumping syndrome a real concern after gastric bypass? Second World Congress for Interventional Therapies for Type 2 Diabetes. Poster #49, March 28, 2011

## National Presentations

**Hazey JW**. Invited Lecture: Fundamentals of upper and lower endoscopy: Ethicon Endo-Surgery Institute, Cincinnati, Oh., May 26, 2011

**Hazey JW**. Invited Lecture: Difficult problems in reasonable patients panel: What To Do? Groin Pain following inguinal hernia repair. SAGES Annual Meeting, San Antonio, Tx., April 1, 2011

**Hazey JW**. Invited Lecture: Common indications and techniques; Endoscopy for surgeons hands-on course, Endoscopy for Surgeons Postgraduate Course: Upper Endoscopy including future indications for NOTES. SAGES Annual Meeting, San Antonio, Tx., March 31, 2011

**Hazey JW**. Post-graduate course: Endoscopy for Surgeons. Hands-on lab. SAGES Annual Meeting, San Antonio, Tx., March 31, 2011

**Hazey JW**. Invited Lecture/Debate: SILS vs No SILS. Central Surgical Annual Meeting, Detroit, Mi., March 18, 2011

**Hazey JW**. Advances in Minimally Invasive Surgery 2011, OSU-Case Western Minimally Invasive Meeting, Marco Island, Fl., February 18-20, 2011

**Hazey JW**. SAGES Resident Workshop: Gastrointestinal Endoscopy & Laparoscopy: An introduction for surgeons: Ethicon Endo-Surgery Institute, Cincinnati, Oh., February 24-25, 2011

**Hazey JW**. Faculty, NOTES and Single Incision Laparoscopy Annual Symposium, The yes's and no's of transgastric surgery. University of California at San Diego, Ca., November 11-13, 2010

**Hazey JW**. Transoral foregut surgery course. Human NOTES and Endolumenal Technology. The Ohio State University, Columbus, Oh., September 24, 2010

**Hazey JW.** Maters in MIS. Endolumenal bariatrics. Kennebunkport, Me., July 15-16, 2010

**Hazey JW.** NOTES Summit. Annual NOSCART meeting. Chicago, IL., July 8-9, 2010

**Hazey JW.** Endoscopy for Surgeons Postgraduate Course: Diagnostic and therapeutic upper GI endoscopy – common indications and techniques; Endoscopy for Surgeons Hands-on Course; Difficult Problems in Reasonable Patients Panel: What To Do?: Groin Pain Following Inguinal Hernia Repair. Presented at SAGES 2011. San Antonio, Tx., March 30-April 2, 2011

**Linn J,** Hungness E, Clark S, Nagle A, Wang E, Soper NJ. General surgery training without laparoscopy fellows: the impact on residents and patients. Central Surgical Association, *Surgery*, March 2011

**Husain S.** Faculty Member: Ischemic colitis and gastrointestinal hemorrhage. Panel Session: Colonic Emergencies. American College of Surgeons 2010 Annual Meeting. Washington, DC, October 3-7, 2010

**Melvin WS.** Endoscopy for Surgeons Postgraduate Course: New technology for therapeutic endoscopy – treatment of GERD, Barrett's, and weight loss; Difficult Problems in Reasonable Patients Panel: What To Do? Presented at SAGES 2011. San Antonio, Tx., March 30-April 2, 2011

**Mikami DJ.** Endoscopy for Surgeons Hands-On Course; Fundamentals for the Use of Safe Energy (FUSE) Hands-On Course: Bipolar devices. Presented at SAGES 2011, San Antonio, Tx., March 30-April 2, 2011

**Mikami DJ,** Expert. Hernia Surgery. *It's Your Health*, It's Your Health-Hernia Surgery. [Radio]. directed by Lisa Davis (Radio Host). performer(s): Dean Mikami, MD. 96.9 FM. Boston, Ma., Created: 2010

**Mikami DJ,** Presenter. Endoluminal bariatric surgery: Today and tomorrow. Bariatric Surgery Update. Michigan Bariatric Society. Ann Arbor, Mi., November 12, 2010

**Mikami DJ,** Presenter. Endoluminal bariatric surgery. Minnesota Bariatric Education Day. Minneapolis, Mn., May 2011

**Mikami DJ,** Presenter. Endoscopic revisional bariatric surgery. Innovations in Endoluminal course. International Federation for the Surgery of Obesity and Metabolic Disorders (IFSO). San Diego, Ca., September 4, 2010

**Mikami DJ,** Presenter. Stomal reduction therapy. Single incision laparoscopic surgery, flexible endoscopy and emerging endoluminal procedures. International Federation for the Surgery of Obesity and Metabolic Disorders (IFSO), San Diego, Ca., September 3, 2010

**Mikami DJ,** Presenter. Fundamental of endoscopic surgery. Presented at Minimally Invasive Surgery Symposium. The University of Hawaii, Honolulu, Hi., February 2011

**Mikami DJ**, Presenter. Minimally invasive hernia surgery. Presented at Minimally Invasive Surgery Symposium. The University of Hawaii. Honolulu, Hi., February 2011

**Mikami DJ**, Presenter. Laparoscopic abdominal wall reconstruction. OSU-Case Western Minimally Invasive Meeting. Marco Island, FL., February 2011

**Mikami DJ**, Presenter “Management of Sleeve Gastrectomy Complications. OSU-Case Western Minimally Invasive Meeting. Marco Island, FL., February 2011

**Mikami DJ**, Presenter. Laparoscopic advance ventral hernia repair. OSU-Case Western Minimally Invasive Meeting. Marco Island, FL., February 2011

**Mikami DJ**, Presenter. Management of bleeding post operatively for the non-bariatric surgeon. SAGES annual meeting. San Antonio Tx., March, 2011

**Mikami DJ**, Presenter. Endoluminal Stomal Reduction. SAGES annual meeting. San Antonio Tx., March, 2011

**Mikami DJ**, Presenter. Functional Use of Safe Energy- Bipolar Energy. SAGES annual meeting. San Antonio Tx., March, 2011

**Mikami DJ**, Presenter. Stomal reduction with StomaphyX. Non-invasive Bariatric Techniques Meeting. Lyon, France, May 2011

**Mikami DJ**, Presenter. Endoscopic bariatric surgery. ASMBS annual meeting. Orlando FL., June 2011.

**Mikami DJ**, Presenter. Sclerotherapy and stomal reduction. ASMBS annual meeting. Orlando FL., June 2011

**Renton DB, Eakin JL**. Video presentation on inguinal hernias encountered lateral to the internal ring during laparoscopic inguinal hernia repair. American College of Surgeons. Washington, DC, October 3-7, 2010

**Renton DB**. Video Presentation on Single Incision Laprosopic Cholecystectomy. American College of Surgeons. Washington, DC, October 3-7, 2010

**Schuster DP**. ASMBS Annual Meeting Plenary Session, 2010. Preoperative workup and medical optimization, fundamentals of bariatric surgery: Dive into bariatric surgery without gambling – unified course for surgeons and integrated health. Las Vegas, Nv., June 21, 2010

**Schuster DP**. 11th Annual Conference on Obesity, University of South Florida, Orlando, FL., September 24-26, 2010 (2 lectures given)

## Miscellaneous Presentations

**Harzman AE.** Laparoscopic colorectal cancer surgery. The Ohio State Assembly of AST. Columbus, Oh., March 19, 2011

**Husain S.** Pelvic floor disorders. Surgery Grand Rounds. Grant Medical Center. Columbus, Oh., December 29, 2010

**Husain S.** Advanced laparoscopic intestinal and solid organ surgery workshop. Cincinnati, Oh., November 18-19, 2010

**Schuster DP.** Klassen Research Day for the Division of Cardiology. The pathophysiology of increasing adiposity: Treating the metabolic syndrome, The Ohio State University, Columbus, Oh., May 19, 2010



## Division of Pediatric Surgery



# Pediatric Surgery



**Jonathan I. Groner, MD**  
Interim Chief, Division of Pediatric Surgery

**T**he Division of Pediatric Surgery conducts its clinical, educational, research, and academic programs at Nationwide Children's Hospital, one of the largest pediatric health care centers in the United States. In 2011, Nationwide Children's Hospital ranked in all 10 of the *U.S. News & World Report* categories for best children's hospitals.

Nationwide Children's Hospital is uniquely positioned as one of the only hospitals in the United States that is an American College of Surgeons designated Level I pediatric trauma center, an American Burn Association verified pediatric burn center, and a Commission on Accreditation of Rehabilitation Facilities (CARF) approved pediatric rehabilitation center. In addition, the hospital is home to one of the largest pediatric clinical expansions in the United States. The pediatric surgery clinical service will move to the new 12-story, 700,000 square foot hospital tower in January, 2012, and the remainder of clinical operations, including a new emergency department with four state-of-the-art trauma rooms, will be occupied 6 months later. In addition, construction for the third research building, which will add significantly to the current clinical and basic science laboratories, will be completed in the coming year.

The Pediatric Surgical Research Laboratory, directed by Dr. Gail Besner and Dr. David Brigstock, is supported by seven NIH grants that fund basic science and translational research in growth factor biology. Dr. Gail Besner is a member of the Center for Perinatal Research of the Research Institute at Nationwide Children's Hospital. Her laboratory focuses on heparin-binding epidermal growth factor (HB-EGF) as a potential therapy to necrotizing enterocolitis and ischemia/reperfusion injury. Recent publications from her laboratory demonstrate that deletion of the gene for HB-EGF increases susceptibility for necrotizing enterocolitis, and overexpression of the HB-EGF gene increases resistance to necrotizing enterocolitis and hemorrhagic shock. Dr. Brigstock and his team continue to examine the role of connective tissue growth factor (CTGF) in the development of pancreatitis and hepatic fibro-

sis. In addition, Dr. Brigstock was awarded a patent for the development of “antibodies to heparin-binding growth factor (HBGF) polypeptides” on March 1, 2011.

The Adolescent Bariatric Surgery Program, in collaboration with the Nationwide Children’s Hospital Center for Healthy Weight and Nutrition, continues at a busy pace. Under the direction of Dr. Michael Michalsky, 16 adolescents underwent bariatric procedures in the past year. The program participates in the Teen-LABS (Longitudinal Assessment of Bariatric Surgery) study, a multi-center NIH-funded clinical study consortium designed to investigate safety, efficacy, and longitudinal outcomes among severely obese adolescents who have been treated with bariatric procedures. Nationwide Children’s Hospital will host a national conference on childhood and adolescent obesity in November, 2011.

The Level I Pediatric Trauma Center remains one of the busiest in the United States and oversees the care of over 1500 traumatically and thermally injured children every year. The trauma program’s leadership has been instrumental in the development of the new national Pediatric Trauma Society, and is currently participating in an NIH – sponsored multicenter trial on the management of children with severe traumatic brain injury.

Dr. Jennifer Aldrink is the director of Surgical Oncology at Nationwide Children’s Hospital, and runs the only pediatric surgical oncology clinic in Ohio. She has a special interest in thyroid cancer and melanoma, and is initiating a study to examine the role of imaging radiation on thyroid disease in children, and is also developing a pediatric thyroid center at Nationwide Children’s Hospital. She also serves as the associate surgical director of the Neonatal Intensive Care Unit and has developed a clinical pathway for gastroschisis patients that resulted in significant improvement in their care.

Dr. Gail Besner is Director of the Pediatric Surgery Residency Training Program. Her research is conducted in the Center for Perinatal Research at the Research Institute at Nationwide Children’s Hospital. This year Dr. Besner was Co-Moderator of an International Web Course on Necrotizing Enterocolitis, with attendees representing 20 countries from around the world. She was an invited participant of the American College of Surgeon’s Surgical Investigator Conference. Many publications and presentations resulted from the laboratory this year, and Dr. Besner’s trainees received the Gold Medal Award for the Resident’s Paper Competition from the Columbus Surgical Society, a Post-Doctoral Fellow Research Award from The OSU Medical Center Research Day, and a 2<sup>nd</sup> Place Prize at the annual meeting of Ohio Chapter of the American College of Surgeons.

Dr. David Brigstock is a Principal Investigator in the Center for Clinical and Translational Research at the Research Institute at Nationwide Children’s Hospital where he is investigating the role of connective tissue growth factor (CTGF) in driving fibrosis after chronic injury in the liver and pancreas, especially in response to ethanol. Dr. Brigstock was a participant in the Society of University Surgeon’s new members poster session at the American Surgical Congress and was an invited speaker at Experimental Biology 2101. He continues to serve as the U.S. editor of The Journal of Endocrinology and was appointed as a member of the Scientific Advisory Board of the International CCN Society.

Dr. Donna Caniano retired as Chief of the Division of Pediatric Surgery and Surgeon-in-Chief of Nationwide Children's Hospital in November, 2010. The "Donna A. Caniano Symposium" was held in her honor on August 28, 2010. It was hosted by Dr. Jay Grosfeld and Dr. Marshall Schwartz, and featured twelve presentations by Dr. Caniano's colleagues and trainees.

Dr. Renata Fabia was appointed the director of the American Burn Association verified Pediatric Burn Program at Nationwide Children's Hospital. This year she introduced the clinical innovation of nurse-regulated burn fluid resuscitation protocols for critically ill children with thermal injuries. She also expanded a nurse-practitioner led burn clinic and developed new sedation protocols for dressing changes. Dr. Fabia also continues to provide care to the majority of the trauma patients and also performs dialysis access for children with chronic renal insufficiency.

Dr. Jonathan Groner is the interim chief of the Division of Pediatric Surgery, and the medical director of the Level I Pediatric Trauma Center. He was an invited speaker at the 18<sup>th</sup> Annual Trauma Symposium at Memorial Healthcare System and University of Miami Miller School of Medicine. In addition, he was a co-author of an editorial entitled "Pediatric Applied Trauma Research Network: A Call to Action," which was published in both *The Journal of Trauma* and *The Journal of Pediatric Surgery*. He also served on a committee that led to the creation of the new national Pediatric Trauma Society and was nominated for secretary. In his role as interim chief, Dr. Groner has recruited two new faculty members (who will join the Division in September, 2011), orchestrated the transformation of the daily care of pediatric surgery patients to a clinical service model, and instituted a weekly dashboard of group and individual clinical indicators. Dr. Groner is the 2010-2011 recipient of the Division of Pediatric Surgery's "Denis R. King Teacher of the Year" award.

Dr. Brian Kenney continues as director of the Nationwide Children's Hospital fellowship in pediatric surgical critical care, which was approved by the Residency Review Committee for five years. In addition, he serves as the Surgical Director for Quality at Nationwide Children's Hospitals and is a member of the Solutions for Patient Safety of the Ohio Hospital Association and the Ohio Children's Hospital Association. He is also an active member of the Pediatric National Surgical Quality Improvement Project (NSQIP).

Dr. Denis King continues as medical director of Nutrition Support Services. In recognition of his outstanding service as a surgical educator, he has received two distinct awards from the OSU College of Medicine: (1) the Lifetime Achievement Award for distinction throughout his career in the education of medical students and residents in surgery; and (2) the 2010 "Excellence in Teaching Award" for the Department of Surgery.

Dr. Marc Michalsky is the surgical director of the Center for Healthy Weight and Nutrition at Nationwide Children's Hospital. Under his leadership, the Adolescent Bariatric Surgery Program has become recognized for its clinical excellence and participation in outcomes research. This year Dr. Michalsky continues his tenure as chairman of the Pediatric Bariatric Committee at ASMBS (American Society for Metabolic and Bariatric Surgery) and was recently appointed to the society's Research Committee. In addition, Dr. Michalsky serves on the Pediatric Advisory Committee for the

Surgical Review Corporation (SRC) where he is involved in the development of adolescent-specific programmatic guidelines that will be used as the foundation for Adolescent Bariatric Center of Excellence (COE) certification.

Dr. Larry Moss was appointed Surgeon-in-Chief of Nationwide Children's Hospital and is the E. Thomas Boles Professor of Surgery and Pediatrics. He previously served on the faculty of Stanford University, and was most recently the Surgeon-in-Chief of the Yale New Haven Children's Hospital. His research interests include necrotizing enterocolitis and surgical outcomes in pediatric surgery, and he has been instrumental in the development of the Pediatric National Surgical Quality Improvement Program (NSQIP). In his new role, Dr. Moss will oversee the development of all of the surgical specialties at Nationwide Children's Hospital.

Dr. Benedict Nwomeh was appointed Associate Director for the Pediatric Surgery Training Program. In addition, he continues as the Director of Surgical Education and Surgical Director for the Center for Pediatric and Adolescent Inflammatory Bowel Disease at Nationwide Children's Hospital. This year he received a Master of Public Health, having completed the MPH program for experienced health professionals at the OSU College of Public Health. He has become an international figure in pediatric surgery education, and has directed several courses in Africa.

Dr. Steven Teich remains the surgical director of the Neonatal Intensive Care Unit and surgical director of the ECMO program at Nationwide Children's Hospital. This year he began the second year of a two-year term as President of the Medical Staff. He continues to collaborate with motility specialists in the pediatric gastroenterology division in development of a gastric stimulator program for children and adolescents with gastroparesis. Nationwide Children's Hospital is one of the few programs in the United States that performs implantation of gastric stimulators for pediatric patients. This year, Dr. Teich and the motility team will be launching a sacral nerve stimulation program for the management of refractory fecal incontinence in pediatric patients.

In our graduate programs, Dr. David Skarda completed the residency in pediatric surgery. In July 2011, he will join the faculty in pediatric surgery at Primary Children's Medical Center and the University of Utah School of Medicine in Salt Lake City Utah as an Assistant Professor of Surgery in the Tenure Track, Clinical Scholar Track, and adjunct Associate Professor of pediatrics. Dr. Helena Crowley will begin the chief residency in pediatric surgery. Dr. Johanna Askegard-Giesmman, who completed a residency in general surgery at the Mayo Clinic in Rochester, Minnesota, will begin the residency in pediatric surgery. Dr. Thomas L. Sims completed the fellowship in pediatric surgical critical care. He will begin a Minimally Invasive Surgery Fellowship at LeBonheur Children's Hospital, Memphis Tennessee. Dr. Natasha Kelly completed a fellowship in minimally invasive and pediatric bariatric surgery.

The members of the Division of Pediatric Surgery are committed to the educational, research, clinical, and service missions of the Department of Surgery, The Ohio State University College of Medicine and Nationwide Children's Hospital, and strive to provide the highest quality pediatric surgical care to all of our patients.



## Faculty

### Jonathan I. Groner, MD

Professor of Clinical Surgery

Interin Chief, Division of Pediatric Surgery

**BS:** Northwestern University, Evanston, Il., 1982

**MD:** Northwestern University, Evanston, Il., 1984

**Specialty Training:** Medical College of Wisconsin, Milwaukee, Wi.; Children's Hospital, Columbus, Oh.

**Appointment:** 1999

**Specialty Interests:** Trauma, burn care

**Research Interests:** Trauma systems and injury prevention



Groner

### Jennifer H. Aldrink, MD

Assistant Professor of Clinical Surgery

**BA:** Wake Forest University, Winston-Salem, NC, 1995

**MD:** East Carolina University School of Medicine, Greenville, NC, 2000

**Specialty Training:** Duke University Medical Center, Durham, NC; Nationwide Children's Hospital, Columbus, Oh.

**Appointment:** 2009

**Research Interests:** Osteosarcoma pulmonary metastases, childhood malignancy and obesity, childhood melanoma, gastroschisis



Aldrink

### Gail E. Besner, MD

Professor of Surgery

**BA:** Cornell University, Ithaca, NY, 1978

**MD:** University of Cincinnati, Cincinnati, Oh., 1982

**Specialty Training:** Brigham and Women's Hospital, Boston, Mass.; Children's Hospital of Buffalo, Buffalo, NY

**Appointment:** 1991

**Specialty Interests:** Burns, pediatric laparoscopic surgery

**Research Interests:** Growth factor involvement in wound healing



Besner

### David R. Brigstock, PhD

Associate Professor of Surgery

**BS:** Brunel University, West London, United Kingdom, 1984

**PhD:** Cambridge University, Cambridge, United Kingdom, 1988

**Specialty Training:** Harvard University, Cambridge, Ma.

**Appointment:** 1991

**Research Interests:** Biology of connective tissue growth factor



Brigstock

**Donna A. Caniano, MD**

Professor of Surgery; Chief, Division of Pediatric Surgery; the H. William Clatworthy, Jr. Professor in Pediatric Surgery

**BA:** Vassar College, Poughkeepsie, NY, 1972

**MD:** Albany Medical College, Albany, NY, 1976

**Specialty Training:** Albany Medical Center Hospital, Albany, NY; Johns Hopkins University Hospital, Baltimore, Md.; Columbus Children's Hospital, Columbus, Oh.

**Appointment:** 1985

**Specialty Interests:** Neonatal gastrointestinal disorders, Hirschsprung's disease

**Research Interests:** Biomedical ethics



*Caniano*

**Renata B. Fabia, MD, PhD**

Assistant Professor of Clinical Surgery

**MD:** Silesian University School of Medicine, Katowice, Poland, 1985

**PhD:** Lund University, Lund, Sweden, 1993

**Specialty Training:** The Ohio State University, Columbus, Oh.; Children's Medical Center, Dallas, Tx.

**Appointment:** 2003

**Specialty Interests:** General surgery in children and adolescents; burn and trauma management

**Research Interests:** Inflammatory bowel disease, trauma



*Fabia*

**Brian D. Kenney, MD, MPH**

Assistant Professor of Clinical Surgery

**BA:** University of Notre Dame, South Bend, In., 1979

**MD:** Medical College of Ohio, Toledo, Oh., 1983

**MPH:** Harvard University School of Public Health, Boston, Ma., 1990

**Specialty Training:** University of Montreal, Montreal, Quebec, Canada

**Appointment:** 2003

**Specialty Interests:** Laparoscopy, thoracoscopy, critical care, and thoracic surgery

**Research Interests:** Clinical epidemiology and outcomes research



*Kenney*

**Denis R. King, MD**

Clinical Associate Professor of Surgery

**BS:** University of Notre Dame, South Bend, In., 1965

**MD:** Hahnemann Medical College, Philadelphia, Pa., 1969

**Specialty Training:** The Ohio State University Hospital; Nationwide Children's Hospital, Columbus, Oh.

**Specialty Interests:** Cancer, nutrition

**Research Interests:** Pediatric oncology



*King*



**Marc P. Michalsky, MD**

Associate Professor of Clinical Surgery

**BA:** Brandeis University, Waltham, Ma., 1988

**MD:** University of Medicine and Dentistry of New Jersey, Newark, NJ, 1992

**Specialty Training:** University of Medicine and Dentistry of New Jersey, Newark, NJ; Columbus Children's Hospital, Columbus, Oh.

**Appointment:** 2004

**Specialty Interests:** Minimally invasive surgery, childhood obesity

**Research Interests:** Childhood obesity, quality performance, surgical outcomes



*Michalsky*

**R. Lawrence Moss, MD**

E. Thomas Boles Jr. Professor of Surgery; Surgeon-in-Chief

**BA:** Stanford University, Stanford Ca., 1982

**MD:** University of California San Diego, La Jolla Ca., 1986

**Specialty Training:** Virginia Mason Medical Center Seattle Wa., Northwestern University Chicago, Chicago, Il.

**Appointment:** 2011

**Specialty Interests:** Neonatal surgery, pelvic malformations, ECMO, conjoined twins

**Research Interests:** Surgical outcomes, evidence based surgery, necrotizing enterocolitis



*Moss*

**Benedict C. Nwomeh, MD, MPH**

Associate Professor of Clinical Surgery

**Undergraduate Degree:** Faculty of Science, University of Lagos, Lagos, Nigeria, 1981

**MD:** College of Medicine, University of Lagos, Lagos, Nigeria, 1986

**MPH:** The Ohio State University, Columbus, Oh., 2011

**Specialty Training:** Medical College of Virginia, Virginia Commonwealth University, Richmond, Va.; Children's Hospital of Pittsburgh, Pittsburgh, Pa.

**Appointment:** 2003

**Specialty Interests:** Pediatric general surgery, neonatal surgery, pediatric minimally invasive surgery, pediatric thoracic surgery

**Research Interests:** Surgical education, clinical outcomes



*Nwomeh*

**Steven Teich, MD**

Clinical Associate Professor of Surgery

**BS, MS:** Rensselaer Polytechnic Institute, Troy, NY, 1976

**MD:** State University of New York at Buffalo, NY, 1981

**Specialty Training:** George Washington University Medical Center, Washington, DC; Children's Hospital of Pittsburgh, Pa.

**Specialty Interests:** Epidermolysis bullosa, burns, laparoscopic surgery

**Research Interests:** Quality improvement and surgical clinical pathways



*Teich*

## Emeritus Faculty

**E. Thomas Boles, Jr., MD**

Professor Emeritus of Surgery

**BS:** College of William and Mary, Williamsburg, Va., 1942

**MD:** Harvard University, Cambridge, Ma., 1945

## Resident Staff

**David E. Skarda, MD**

Clinical Instructor and Chief Resident

**BS:** Brigham Young University, 1997

**MD:** Albert Einstein College of Medicine, 2001

**Helena M. Crowley, MD**

Clinical Instructor and Assistant Chief Resident

**BA:** Yale University, 1997

**MD:** Tufts University School of Medicine, 2005

**Thomas L. Sims, Jr., MD**

Surgical Critical Care Fellow

**BS:** Bob Jones University, 1998

**MD:** Medical University of South Carolina, 2003

**Natasha M. Kelly, MD**

Minimally Invasive Surgery/Bariatric Fellow

**BS:** City College of New York, 1996

**MD:** SUNY Health Science Center at Brooklyn, 2000

## Mission

The Division of Pediatric Surgery, in alignment with Nationwide Children's Hospital, is dedicated to fulfilling the CARES mission: providing the highest quality of Care, Advocacy for children, child health Research, Education, and outstanding Service.

## Research Programs

The Pediatric Surgery Research Laboratory focuses on two major areas of clinical interest. Dr. Besner's laboratory studies heparin-binding EGF-like growth factor (HB-EGF) and its ability to protect the intestines from various forms of injury. These research projects continue to be funded by the National Institutes of Health and include:

- Elucidation of the mechanisms by which HB-EGF exerts its protective effects against intestinal injury.
- Studies of the effect of HB-EGF on intestinal stem cells.
- Studies of susceptibility to intestinal injury in HB-EGF transgenic and knockout mice.
- Determination of the signal pathways used by HB-EGF in intestinal cytoprotection.
- Studies of the effects of HB-EGF in several established animal models of intestinal injury.
- Design of HB-EGF clinical trials in the prevention of necrotizing enterocolitis in preterm infants.

The second area of interest is the role played by connective tissue growth factor (CTGF) in scarring and fibrosis. These studies are led by Dr. Brigstock and focus on the fibrotic properties of CTGF, including novel strategies for antagonizing CTGF action *in vivo*. Current areas of emphasis include:

- Characterization of CTGF receptors and signaling pathways in hepatic or pancreatic stellate cells.
- Regulation of CTGF production by stellate cells.
- Anti-CTGF targeting strategies in the liver and pancreas.

## Accomplishments in Research

### **Gail E. Besner, MD**

The Besner laboratory has had significant accomplishments this year. Dr. Besner currently holds three R01 grants from the NIH to continue her basic science research on HB-EGF. In conjunction with her biotechnology contacts, human-grade HB-EGF has been produced and permission from the FDA to begin Phase I trials of HB-EGF in humans has been obtained. Dr. Besner's research was presented at multiple national meetings this year, including a plenary session presentation at the annual Academic Surgical Congress given by Dr. Chun-Liang Chen from Dr. Besner's laboratory. Many publications have resulted from this year's work. Several awards were obtained by Dr. Besner's research fellows in 2010. These included the 2010 Gold Medal Resident's Research Award from the Presidential Symposium of the Columbus Surgical Society awarded to Dr. Iyore James, the 2010 Post-doctoral Fellow Research Award from the Ohio State University Medical Center Research Day awarded to Dr. Andrei Radulescu, and the 2010 Second Place Prize from the Ohio Chapter of the American College of Surgeons awarded to Dr. Iyore James.

### **David R. Brigstock, PhD**

Dr. Brigstock continues his NIH-funded studies of the role of connective tissue growth factor (CTGF) in organ fibrosis. He holds two NIH R01 grants to support his work on CTGF-mediated fibrogenic pathways in the liver and pancreas. He also is the recipient of a NCH-OSU collaborative grant with Dr. Ramesh Ganju to study the role of CTGF in HIV/HCV-mediated hepatic pathology. He is also the recipient of two NIH ARRA supplements that provide for equipment improvements in the lab and for summer training of a middle school science teacher (Mr. Todd Martin from The Columbus Academy, Gahanna OH). New intellectual property relating to CTGF antibodies resulted in the granting of US patent 7897732, with Dr. Brigstock as inventor. Post doctoral scientists from Dr. Brigstock's lab who presented their work at national meetings included Dr. Gaungcun Huang at the 2010 Meeting of the American Association for the Study of Liver Diseases and at the 2010 International Symposium on Cells of the Hepatic Sinusoid (for which Dr Huang received a Trainee Travel award), and Dr. Li Chen at the 2010 Meeting of The American Society for Cell Biology and Digestive Disease Week 2011. As a basic science charter member of the Society of University Surgeons, Dr. Brigstock presented his work at the 2011 Academic Surgical Congress.

Together, Dr. Besner and Dr. Brigstock were honored to present their research projects to the local high school community as co-speakers for the Carol Goldsmith Memorial Science Lecture at the Wellington School in Columbus, November 2010.

## Active Research Grants

**Aldrink JH.** Thyroid Nodules and Radiation Exposure, Thomas Boles Endowment Fund, \$20,500.

**Besner GE.** HB-EGF and Intestinal Ischemia/Reperfusion. National Institutes of Health, May 1, 2007-April 30, 2012, \$1,180,800.

**Besner GE.** HB-EGF Therapy for Necrotizing Enterocolitis. National Institutes of Health, June 1, 2007-May 31, 2012, \$1,800,000.

**Besner GE.** (Principal Investigator- Peter Giannone, MD; Mentor- Dr. Gail E. Besner) Novel Therapeutic Targets in Necrotizing Enterocolitis. National Institutes of Health, February 1, 2008-January 31, 2013.

**Besner GE.** Role of NO and Endothelin in Human NEC. National Institutes of Health, July 1, 2003-June 30, 2011, \$1,250,000.

**Besner GE.** Fetal Origins of Necrotizing Enterocolitis. March of Dimes Foundation, July 1, 2008- June 30, 2011, \$1,800,000.

**Brigstock DR.** Mechanisms of CTGF-induced liver disease. National Institutes of Health (National Institute on Alcohol Abuse and Alcoholism), April 15, 2007 – March 31, 2012, \$1,125,000.

**Brigstock DR.** Mechanisms of CTGF-induced liver disease. National Institutes of Health (National Institute on Alcohol Abuse and Alcoholism), September 1, 2010 – March 31, 2012, \$50,000.

**Brigstock DR.** CTGF in Pancreatic Stellate Cell-Mediated Fibrogenesis NIH (NIAAA) September 30, 2007 – August 31, 2012, \$1,125,000.

**Brigstock DR.** CTGF in Pancreatic Stellate Cell-Mediated Fibrogenesis NIH (NIAAA) July 10, 2009-August 31, 2011, \$43,000.

**Michalsky MP.** Adolescent Bariatrics: Assessing Health Benefits & Risk- Sleep Study. National Institute of Diabetes & Digestive & Kidney Disease (NIDDK), September 21, 2009-August 31, 2011, \$6,372.

**Michalsky MP.** Adolescent Bariatrics: Assessing Health Benefits & Risk- Sleep Study. National Institute of Diabetes & Digestive & Kidney Disease (NIDDK), December 23, 2010-August 31, 2011, \$6,372.

**Michalsky MP.** Adolescent Bariatrics: Assessing Health Benefits & Risk. National Institute of Diabetes & Digestive & Kidney Disease (NIDDK), April 1, 2010-March 31, 2011, \$16,644.

**Michalsky MP.** Prediction of Outcome of Bariatric Surgery Using the Autonomic and Enteric Nervous Systems. Thomas Boles Endowment Fund, October 6, 2008-October 6, 2013, \$11,600.

**Michalsky MP.** Adolescent Bariatrics: Controlled Longitudinal Study of Psychosocial Development (TEEN VIEW). National Institute of Diabetes & Digestive & Kidney Disease (NIDDK), April 1, 2008-March 31, 2012, \$60,000.

**Michalsky MP.** Dietary Intake and Eating Behavior in Adolescents who Undergo Bariatric Surgery, National Institute of Diabetes & Digestive & Kidney Disease (NIDDK), October 1, 2008-September 30, 2013, \$72,856.

**Michalsky MP.** Adolescent Bariatrics: Assessing Health Benefits and Risks or the Teen-Longitudinal Assessment of Bariatric Surgery (TEEN-LABS), National Institute of Diabetes & Digestive & Kidney Disease (NIDDK), April 1, 2008- March 31, 2012, \$219,738.

**Michalsky MP.** Laparoscopic Adjustable Gastric Banding (LAPBAND) as a Treatment for Morbidly Obesity in Adolescents, Allergan Health, May 1, 2006-April 30, 2011, \$1,203,532.

**Moss, RL.** ISPIRE Center Partnership on Biologic Markers in Neonatal Critical Illness. Ikaria Corp, December 1, 2010-December 1, 2012, \$3,184,911.

## Clinical Programs

- Level I pediatric trauma program with American College of Surgeons verification.
- American Burn Association-verified multidisciplinary pediatric burn center.
- Columbus Fetal Medicine Collaborative in conjunction with The Ohio State University Medical Center, Mount Carmel Health System, and OhioHealth.
- Pediatric and adolescent bariatric surgery program.
- Multidisciplinary ECMO neonatal and pediatric program.
- Minimally invasive pediatric surgery program.
- Chest wall center for comprehensive care of chest wall anomalies.
- Surgical oncology program.

## Accomplishments in Clinical Care

- Maturation of outpatient care for children with thermal injuries.
- Maturation of the bariatric surgery program for the treatment of morbidly obese adolescents, and participation in a funded clinical trial using the Lap-Band.
- Development of advanced minimally invasive procedures for thorascopic and laparoscopic management of congenital and acquired lung and intestinal disorders.
- Development of a multi-disciplinary surgical oncology clinic.

## Clinical Statistics

OR Procedures	3,964
Outpatient Visits	9,958
Admissions	2,171
Patient Days	9,465
Average Length of Stay (Days)	4.36

## Educational Programs

- Fully-accredited, two-year residency in pediatric surgery, which accepts one resident per year through the National Residency Match Program. The residency qualifies a candidate for the Certificate of Special Competence in Pediatric Surgery, upon successful completion of the Qualifying and Certifying Examinations in Pediatric Surgery, as given by the American Board of Surgery.
- Fully-accredited fellowship in pediatric surgical critical care, which annually accepts one resident at the PGY-4 level or higher in general surgery. Completion of the fellowship makes a candidate eligible for the Examination in Surgical Critical Care administered by the American Board of Surgery.
- Clinical fellowships in trauma and clinical research and in minimally invasive and adolescent bariatric surgery for senior level residents in general surgery.
- Basic science research fellowships in the Pediatric Surgical Laboratory for residents in accredited programs in general surgery.
- Comprehensive pediatric surgery rotation in the care of infants, children, and adolescents with surgical disease, for junior and senior residents in general surgery from The Ohio State University Medical Center, OhioHealth, and the Mount Carmel Health System.
- Comprehensive pediatric surgery rotation in the care of pediatric patients for interns in the combined Nationwide Children's Hospital-Doctor's Hospital pediatrics residency and for fellows in the pediatric critical care medicine fellowship at Children's Hospital.
- Clinical clerkship in pediatric surgery.
- Subinternship in pediatric surgery.



## Accomplishments in Education

- Ongoing clinical research in surgical education techniques by Dr. Benedict Nwomeh.
- Ongoing clinical research on optimal communication with parents of pediatric surgical patients by Dr. Benedict Nwomeh.
- Pediatric Surgery Fellowship re-accredited for a three year period by the ACGME.

## Community Outreach Programs

- Injury passenger safety program, part of the Nationwide Children's Hospital trauma program, which concentrates on child safety seats and bicycle helmets.
- Quarterly publication of *Surgical Scene* for pediatricians and primary care physicians in the Central Ohio and referral area. *Surgical Scene* highlights common surgical conditions, their diagnosis, and treatment.
- Regular lectures about pediatric trauma and thermal injury, by physician and nursing members of the Nationwide Children's Hospital trauma program, presented to emergency services personnel in the Central Ohio and referral area.

## Accomplishments in Community Outreach

- Distribution of 534 bicycle helmets to children in Central Ohio, in cooperation with the Columbus Blue Jacket Foundation.
- Inspection of 231 child safety seats and distribution of 605 child safety seats through the trauma program of Nationwide Children's Hospital.
- Trained 11 NICU staff to be certified child passenger safety technicians (CPST's).

## Publications

Christensen RD, Wiedmeier SE, Baer VL, Henry E, Gerday E, Lambert DK, Burnett J, **Besner GE**. Antecedents of bell stage III necrotizing enterocolitis. *J Perinatology* 30:54-57, 2010

Chen C-L, Mehta V, Wu D, Otabor I, El-Assal O, Feng J, Radulescu A, Zhang H-Y, Chen Y, **Besner G**. Intestinal phenotype in mice overexpressing a heparin-binding EGF-like growth factor transgene in enterocytes. *Growth Factors* 28:82-97, 2010

Radulescu A, Yu X, Orvets N, Chen Y, Zhang H-Y, **Besner G**. Deletion of the heparin-binding epidermal growth factor-like growth factor gene increases susceptibility to necrotizing enterocolitis. *J Pediatr Surg* 45:729-734, 2010

Christensen R, Gordon P, **Besner G**. Can we cut the incidence of necrotizing enterocolitis in half – today? *Fetal and Pediatric Pathology* 29:1-14, 2010

James I, Chen C-L, Huang G, Zhang H-Y, Velten M, **Besner G**. Heparin-binding EGF-like growth factor protects the lungs from remote injury after intestinal ischemia/reperfusion. *J Surg Res* 163:86-95, 2010

Zhang H-Y, Radulescu A, Chen Y, **Besner G**. HB-EGF improves Intestinal microcirculation after hemorrhagic shock. *J Surg Res* (Epub ahead of print)

Radulescu A, Zhang H-Y, Yu X, Olson J, Darbyshire A, Chen Y, **Besner G**. Heparin-binding EGF-like overexpression in transgenic mice increases resistance to necrotizing enterocolitis. *J Pediatr Surg* 45:1933-1939, 2010

Zhou Y and **Besner G**. Heparin-binding EGF-like growth factor is a neurotrophic factor for PC12 cells. *Neurosignals* 18:141-151, 2010

Zhang H-Y, Radulescu R, Chen C-L, Olson J, Darbyshire A, **Besner G**. Mice overexpressing the gene for heparin-binding EGF-like growth factor (HB-EGF) have increased resistance to hemorrhagic shock and resuscitation. *Surgery* 149:276-283, 2011

Radulescu A, Zhang H-Y, Chen C-L, Chen Y, Zhou Y, Yu X, Otabor I, Olson J, **Besner G**. Heparin-binding EGF-like growth factor promotes intestinal anastomotic healing. *J Surg Res* (Epub ahead of print)

Yu X, Radulescu A, Chen C-L, James IO, **Besner G**. Heparin-binding EGF-like growth factor protects pericytes from injury. *J Surg Research* (Epub ahead of print)

Giannone P, Richtor J, Alcamo A, Schanbacher B, Mofleh M, Luce W, Han B, Nanervis C, **Besner G**, Bauer J. Poly (ADP-Ribose) Polymerase-1: A novel therapeutic target in necrotizing enterocolitis. *Pediatric Research* 2011 (Epub ahead of print)

Chen L, Charrier AL, Leask A, French S **Brigstock DR**. Ethanol-stimulated differentiated functions of human or mouse hepatic stellate cells are mediated by connective tissue growth factor. *J Hepatol* 2010 December 13

Zaidi A, Bauer J, **Michalsky MP**, Olshove, V., Boettner, B., Philips, A., Cook, S. The Impact of obesity on early post operative outcomes in adults with congenital heart disease. *Congenit Heart Dis* 6(3): 241-6, May 2011

Duro DD, Kalish, LA, Johnston P, Jaksic T, McCarthy M, Martin C, Dunn JCY, Brandt M, Nobuhara KK, Sylvester KG, **Moss RL**, Duggan CR,: Risk factors for intestinal failure in infants with necrotizing enterocolitis: A Multicenter, Prospective Cohort Study. *J Pediatr* 157:203-208, August 2010

Raval MW, Dillon PW, Bruny JL, Ko CY, Hall BL, **Moss RL**, Oldham KT, Richards KE, Vinocur CD, Ziegler MM. American College of Surgeons National Surgical Quality Improvement Program Pediatric: a phase I report. *JACS* 212:1-11, January 2011

Wynne KE, Simpson BJ, Berman L, Rangel SJ, Grosfeld JL, **Moss RL**: Results of a longitudinal study of rigorous manuscript submission guidelines designed to improve the quality of clinical research reporting in a peer-reviewed surgical journal. *J Pediatr Surg* 46:131-137, January 2011

Malhotra Y, Fitzgerald TN, Diefenbach KA, Harper H, Silva CT, Zambrano E, Jubinsky PT, **Moss RL**, Bhandari V. Unique case of rhabdoid tumor presenting as hemoperitoneum in an infant, In press *J Pediatr Surg* 46, 247-251, January 2011

**Nwomeh BC** and Caniano DA. Emerging ethical issues in pediatric surgery. *Pediatr Surg Int* 2011 April 22. [Epub ahead of print]

## Abstracts

Chen C, James I, Yu X, **Besner G**. HB-EGF Protects intestinal stem cells from hypoxic injury via the EGFR/PI3K/MAPK pathway. *Journal of Surgical Research* 165:261, 2011

Chen L, Leask A, **Brigstock DR**. Ethanol-stimulated differentiated functions of activated human hepatic stellate cells are mediated by connective tissue growth factor *Mol Biol Cell* 2010, 21 (suppl) A 906/B1393

Chen L, Tsukamoto L, **Brigstock DR**. Ethanol-dependent expression of connective tissue growth factor is associated with down-regulation of microRNA 214 *Gastroenterology* 2011 (Suppl)

Huang G, **Besner GE**, **Brigstock DR**. HB-EGF attenuates experimental liver fibrosis and reduces hepatic stellate cell activation. *Hepatology* 2010 52 (Suppl) A2009

Radulescu A, Zhang H-Y, Chen C-L, Chen Y, Zhou Y, Olson J, **Besner G**. Expression levels of heparin-binding EGF-like growth factor affect intestinal anastomotic wound healing. *J Surg Res* 158:184-5, 2010

Radulescu A, Zhang H-Y, Yu X, Olson J, Darbyshire A, Chen Y, **Besner G**. Heparin-binding EGF-like Growth Factor (HB-EGF) Overexpression in transgenic mice increases resistance to necrotizing enterocolitis. *Journal of the American College of Surgeons*, October, 2010

## Books

Ameh EA, Bickler SJ, Lakhoo K, **Nwomeh BC**, Poenaru D (Eds). *Paediatric Surgery: A Comprehensive Textbook for Africa*. Global-HELP Organization, Seattle, WA, 2011

**Caniano DA**. *A History of Healing: Pediatric Surgery at The Ohio State University College of medicine and Nationwide Children's Hospital, 1950-2010*. The Ohio State University, 2011

## Book Chapters

**Aldrink J**, Sowande OA. Peptic ulcer disease: In: Ameh EA, Bickler SJ, Lakhoo K, Nwomeh BC, Poenaru D (Eds), *Paediatric Surgery: A Comprehensive Textbook for Africa*. Global-HELP Organization, Seattle, WA, 2011

**Aldrink JH**, Finkelstein JB, Ginsburg HB, Rouma BS. Hydrometrocolpos. In: Ameh EA, Bickler SJ, Lakhoo K, Nwomeh BC, Poenaru D (Eds), *Paediatric Surgery: A Comprehensive Textbook for Africa*. Global-HELP Organization, Seattle, WA, 2011

**Besner G**. Pediatric burn management. *Fundamentals of Pediatric Surgery*, Peter Mattei (ed).

**Brigstock DR**. Inhibitors of connective tissue growth factor (CCN2)-mediated fibrogenesis: Underlying mechanisms and prospects for anti-fibrotic therapy. Ed B. Perbal. In “*CCN Proteins in Health and Disease*”, New York Springer Publishing 2010 Chapter 14. pp 183-204

**Michalsky MP**, Garcia V. Adolescent bariatric surgery. edited by Mervyn Deitel, Michel Gagner, John B. Dixon, Jacques Himpen, Atul K. Madan, *Handbook of Obesity Surgery Current Concepts and Therapy of Morbid Obesity and Related Disease*, Toronto, Canada, FD-Communications, Inc., 2010

Fitzgerald TN, **Moss RL**. *Clinical Outcomes Evaluation and Quality Improvement Pediatric Surgery 7th edition*, (eds) Adzick NS, Krummel TM, Laberge JM, Shamberger R, Caldamone A Elsevier, Philadelphia, 2011

Berman L, **Moss RL**. Necrotizing enterocolitis: An update, *Sem in Fet and Neonat Med* 1-6, 2011

Henry MCW, **Moss RL**. Appendicitis and mesenteric lymphadenitis. In *Principles and Practice of Pediatric Infectious Diseases 4th edition*, Long SS, Pickering LK, Prober CG. Elsevier, New York, 2011

Diefenbach K, **Moss RL**. Intra-abdominal, visceral, and retroperitoneal abscesses. In *Principles and Practice of Pediatric Infectious Diseases 4th edition*, Long SS, Pickering LK, Prober CG. Elsevier, 2011

Rice-Townsend SE, **Moss RL**, Rangel SJ. Peritonitis, in *Principles and Practice of Pediatric Infectious Diseases 4th edition*, Long SS, Pickering LK, Prober CG. Elsevier, New York, 2011

Mshelbwala PM and **Nwomeh BC**. History of paediatric surgery specialty and relevance to Africa. In: Ameh EA, Bickler SJ, Lakhoo K, Nwomeh BC, Poenaru D (Eds), *Paediatric Surgery: A Comprehensive Textbook for Africa*. Global-HELP Organization, Seattle, WA, 2011

Carter RF, **Nwomeh BC**, and Lanning DA. Wound healing. In: Ameh EA, Bickler SJ, Lakhoo K, Nwomeh BC, Poenaru D (Eds), *Paediatric Surgery: A Comprehensive Textbook for Africa*. Global-HELP Organization, Seattle, Wa., 2011

Van As AB, Rocourt DV and **Nwomeh BC**. Thoracic trauma. In: Ameh EA, Bickler SJ, Lakhoo K, **Nwomeh BC**, Poenaru D (Eds), *Paediatric Surgery: A Comprehensive Textbook for Africa*. Global-HELP Organization, Seattle, Wa., 2011

Van As AB, Rocourt DV and **Nwomeh BC**. Injuries from child abuse. In: Ameh EA, Bickler SJ, Lakhoo K, Nwomeh BC, Poenaru D (Eds), *Paediatric Surgery: A Comprehensive Textbook for Africa*. Global-HELP Organization, Seattle, Wa., 2011

Sidler D, Kling S, **Nwomeh BC**, and Omonzejele PF. Ethical issues in the African setting. In: Ameh EA, Bickler SJ, Lakhoo K, Nwomeh BC, Poenaru D (Eds), *Paediatric Surgery: A Comprehensive Textbook for Africa*. Global-HELP Organization, Seattle, Wa., 2011

Osifo DC, Askegaard-Giesmann JR and **Nwomeh BC**. Gastrointestinal stomas. In: Ameh EA, Bickler SJ, Lakhoo K, Nwomeh BC, Poenaru D (Eds), *Paediatric Surgery: A Comprehensive Textbook for Africa*. Global-HELP Organization, Seattle, Wa., 2011

Abantanga FA, Teeple EA, and **Nwomeh BC**. Paediatric injury scoring and trauma registry. In: Ameh EA, Bickler SJ, Lakhoo K, Nwomeh BC, Poenaru D (Eds), *Paediatric Surgery: A Comprehensive Textbook for Africa*. Global-HELP Organization, Seattle, Wa., 2011

Ameh EA, Chirdan LB, Otabor IA, and **Nwomeh BC**. Abdominal Trauma. In: Ameh EA, Bickler SJ, Lakhoo K, Nwomeh BC, Poenaru D (Eds), *Paediatric Surgery: A Comprehensive Textbook for Africa*. Global-HELP Organization, Seattle, Wa., 2011

**Teich S, Michalsky MP**. Quality improvement, education, and outcomes research in pediatric surgery, edited by Mattei, P, et al. (ed), *Fundamentals of Pediatric Surgery, Second Edition* (in publication)

## Visiting Professorships

**Groner JL.** Building a trauma program – The Nationwide Children’s Hospital model. (Surgery Grand Rounds), presented at Brenner Children’s Hospital, Wake Forest University Baptist Medical Center, Wake Forest, NC (*visiting professor*)

**Groner JL.** “The good, the bad, and the ugly: Recognition of shock in pediatric trauma” presented at Brenner Children’s Hospital, Wake Forest University Baptist Medical Center, Wake Forest, NC (*visiting professor*)

## International Presentations

**Nwomeh BC:** Education research. Fundamentals of Research and Career Development Course. Association for Academic Surgery, Abuja, Nigeria, November 19, 2010

## National Presentations

**Aldrink JH, Nwomeh BC, Caniano DA.** Variability in gastroschisis treatment: A survey of North American pediatric surgery training programs. National Conference and Exhibition, American Academy of Pediatrics, Surgical Section, San Francisco, CA, October 2, 2010

**Aldrink JH,** Puthoff T, Schneider J, **Caniano DA,** Wispe J. Safety of ketorolac in surgical neonates and infants age 0-3 months, Presented at the 2010 American Academy of Pediatrics, Surgery Section, San Francisco, Ca., October 2-5, 2010

Huang G, **Besner G, Brigstock D.** HB-EGF gene knockout exacerbates liver fibrosis in mice. 15th Annual International Symposium on Cells of the Hepatic Sinusoid, Pasadena, Ca., August 2010. Winner – Trainee Travel Award Competition

Chen C-L, Radulescu A, James I, Zhang H-Y, El-Assal O, Gunn J, **Besner G.** HB-EGF promotes  $\alpha$ -defensin secretion from intestinal paneth cells. American Academy of Pediatrics, 2010 National Conference and Exhibition, San Francisco, Ca., October 2, 2010

Radulescu A, Zhang H-Y, Yu X, Olson J, Darbyshire A, Chen Y, **Besner G.** HB-EGF overexpression in transgenic mice increases resistance to necrotizing enterocolitis. American College of Surgeons Surgical Forum, San Francisco, Ca., October 5, 2010

Huang G, **Besner G, Brigstock D**. HB-EGF attenuates experimental liver fibrosis and reduces hepatic stellate cell activation. Annual Meeting of the American Association for the Study of Liver Diseases (AASLD), Boston, Ma., October 2010

Odor C, Brown Kirschman K, Pelley T, Persinger A, Butz C, **Besner G, Fabia R**. Symptoms of post-traumatic stress in young pediatric burn patients and their parents. Kansas Conference in Clinical Child and Adolescent Psychology, Kansas City, Mo., October 7, 2010

Chen C-L, James IO, Yu X, **Besner G**. HB-EGF protects intestinal stem cells from hypoxic stress via the EGFR/PI3K/MAPK pathway. 6th Annual Academic Surgical Congress, Huntington Beach, Ca., Association of Academic Surgery Plenary Session Oral Presentation. February 1, 2011

Odor C, Brown Kirschman K, Pelley T, Butz C, **Besner G, Fabia R**. Demographic and injury variables as predictors of child post-traumatic stress symptoms following burn injury. National Conference in Pediatric Psychology, San Antonio, Tx., April 14, 2011

VerLee S, Ackerman C, Butz C, **Fabia R, Besner G**, Giles S. The application of virtual reality to reduce pain and distress. Society of Pediatric Psychology, San Antonio, Tx., April 14, 2011

Pelley T, Brown-Kirschman K, Odor C, Butz C, **Besner G, Fabia R**. The development and validation of the psychosocial adjustment to burn questionnaire for children age five and under. Society of Pediatric Psychology, San Antonio, Tx., April 14, 2011

Yang J, Radulescu A, Chen C-L, Zhang H-Y, James I, **Besner G**. Heparin-binding EGF-like growth factor improves intestinal barrier function and reduces mortality in a murine model of peritonitis. American Pediatric Surgical Association, Palm Desert, Ca., May 22, 2011

Zhou Y, Markmann K, **Besner G**. Over-expression of HB-EGF protects intestinal myenteric plexus neurons subjected to ischemia/reperfusion injury. American Pediatric Surgical Association, Palm Desert, Ca., May 22, 2011

Huang G, Besner GE, **Brigstock DR**. HB-EGF gene knockout exacerbates liver fibrosis in mice. 15th Annual International Symposium on Cells of the Hepatic Sinusoid. Pasadena Ca., August 29 – September 1, 2010

Chen L, Leask A, **Brigstock DR**. Ethanol-stimulated differentiated functions of activated human hepatic stellate cells are mediated by connective tissue growth factor. 50th Annual Meeting of ASCB, Philadelphia, Pa., December 11-15, 2010

**Brigstock DR**. Increased susceptibility to liver fibrosis in mice expressing a connective tissue growth factor transgene in hepatocytes. Academic Surgical Congress, Joint Meeting of Association for Academic Surgery and Society of University Surgeons, Huntington Beach, Ca., February 1-3, 2011

Chen L, Tsukamoto L, **Brigstock DR**. Ethanol-dependent expression of connective tissue growth factor is associated with down-regulation of microRNA 214 Digestive Disease Week, Chicago, Il., May 6-10, 2011



Booth A, Leder MR, McGraw M., **Fabia R**, Scribano FV. Characteristics of animal bites in young children and concern for supervisory neglect. Pediatric Academic Societies' & Asian Society for Pediatric Research Joint Meeting, November 2010

**Groner JJ.** Bullying and violence in today's youth. Presented at the 18th Annual Trauma Symposium, Memorial Healthcare System and University of Miami Miller School of Medicine, Hallandale Beach, FL., February 10, 2011

**Groner JJ.** Therole of the adult surgeon in pediatric trauma care. Presented at the 18th Annual Trauma Symposium, Memorial Healthcare System and University of Miami Miller School of Medicine, Hallandale Beach, FL., February 10, 2011

**Groner JJ.** Pediatric burns. Presented at the 18th Annual Trauma Symposium, Memorial Healthcare System and University of Miami Miller School of Medicine, Hallandale Beach, FL., February 12, 2011

**Michalsky MP.** Childhood obesity: Facility related considerations. American Pediatric Surgical Society 2011 Annual Meeting, Palm Desert, Ca., May 22-25, 2011

**Michalsky MP.** Chairman, Adolescent Symposium Presentations. American Society of metabolic and Bariatric Surgery, Orlando, FL., June 13-17, 2011

Oyetunji TA, **Nwomeh BC**, Ong'uti SK, Gonzalez DO, Cornwell EE, Fullum TM. Improved outcomes for laparoscopic versus open appendectomy in children. Association for Academic Surgery (Annual Academic Surgical Congress), Huntington Beach, Ca., February 4, 2011

Oyetunji TA, Bolorunduro OB, Ong'uti SK, Okoronkwo NP, Cornwell EE, **Nwomeh BC.** Pediatric negative appendectomy rate: Trend, predictors and differentials. Association for Academic Surgery (Annual Academic Surgical Congress), Huntington Beach, Ca., February 4, 2011

Oyetunji TA, Graf JJ, Bolorunduro OB, Ong'uti SK, Cornwell EE, **Nwomeh BC.** Neonatal appendicitis: epidemiologic characteristics from a national database. Association for Academic Surgery (Annual Academic Surgical Congress), Huntington Beach, Ca., February 4, 2011

**Nwomeh BC** and Nadler EP. "The role of academic surgical societies in global health: The AAS Experience" Association for Academic Surgery (Annual Academic Surgical Congress), Huntington Beach, Ca., February 4, 2011

**Teich S.** Kids with polyposis, quality of life after surgery: Surgical considerations, what it means to have a stoma. Analyze the different surgical approaches to pediatric polyposis. National Society of Genetic Counselors, Dallas, Tx., October 14-17, 2010

**Teich S.** Gastric stimulator for treatment of patient with pseudo-obstruction-intestinal failure. Symposium, American Pediatric Surgical Association, Palm Desert, Ca., May 22, 2011

**Teich S.** What operations are appropriate and what are the outcomes, ASMBS, Orlando, Fl., June 16, 2011

## Miscellaneous Presentations

**Aldrink JH.** Acute abdomen – Acute Care Lecture Series, Nationwide Children’s Hospital, Columbus, Oh., August 26, 2010

**Aldrink JH.** Pediatric melanoma: How far we have (not) come – Donna A. Caniano Symposium, The Department of Surgery at The Ohio State University and Nationwide Children’s Hospital, Columbus, Oh., August 28, 2010

**Aldrink JH.** Common pediatric surgical problems, Riverside Family Practice Residency Program, Riverside Methodist Hospital, Columbus, Oh., September 15, 2010

**Aldrink JH.** Current surgical studies - Gastroschisis Postoperative Neonatology Retreat, Nationwide Children’s Hospital, Columbus, Oh., February 9, 2011

**Aldrink JH.** Common Pediatric Surgical Emergencies PEM Lecture, Emergency Department, Nationwide Children’s Hospital, Columbus, Oh., March 16, 2011

**Aldrink JH.** Melanoma in children and teenagers. Interview on ONN / CBS television, July, 2010

**Aldrink, JH.** Pediatric surgery – Basic Science Student Lecture, The Ohio State University College of Medicine, Columbus, Oh., March 24, 2011

**Aldrink JH.** NCH Research Day: Neonatal care collaborative to decrease length of stay, Nationwide Children’s Hospital, Columbus, Oh., April 6, 2011

**Aldrink JH.** CHCA Race for Results (R4R): Neonatal care collaborative to decrease length of stay, Nationwide Children’s Hospital, Columbus, Oh., May 2011

**Besner G.** HB-EGF: From bench to bedside, Donna A. Caniano Symposium, Columbus, Oh., August 28, 2010

**Besner G.** Pediatric burn management. Psychology Trainee Lecture Series, Nationwide Children’s Hospital, Columbus, Oh., October 20, 2010

**Besner G.** Big news for small intestines. Annual Carol Goldsmith Lecture Series, Wellington High School, Columbus, Oh., November 5, 2010

**Besner G.** Necrotizing enterocolitis. Neonatology Grand Rounds, Nationwide Children's Hospital, Columbus, Oh., January 28, 2011

Zhang H-Y, James I, Chen C-L, Wetzl A, Radulescu A, **Besner G.** Heparin-binding EGF-like growth factor preserves gut barrier function by blocking neutrophil-endothelial cell adhesion after hemorrhagic shock and resuscitation in mice. 5th Annual International Scholar Research Exhibition, The Ohio State University College of Medicine, Columbus, Oh., November 17, 2010

Radulescu R, Zhang, H-Y, Yu X, Olson J, Darbyshire A, Chen Y, **Besner G.** Heparin-binding EGF-like growth factor overexpression in transgenic mice increases resistance to necrotizing Enterocolitis. Columbus Surgical Society, Columbus, Oh., March 6, 2011

James I, Zhang H-Y, Chen C-L, Wetzl A, Radulescu A, **Besner G.** Heparin-binding EGF-like growth factor preserves gut barrier function by blocking neutrophil-endothelial cell adhesion after hemorrhagic shock and resuscitation in mice. Columbus Surgical Society, Columbus, Oh., March 6, 2011

James I, Zhang H-Y, Chen C-L, Wetzl A, Radulescu A, **Besner G.** Heparin-binding EGF-like growth factor preserves gut barrier function after hemorrhagic shock and resuscitation in mice. The 22nd Annual Presidential Symposium of the Columbus Surgical Society, Columbus, Oh., March 12, 2011

Yang J, Chen C-L, Watkins D, Zhang H-Y, **Besner G.** Heparin-binding EGF-like growth factor (HB-EGF) and mesenchymal stem cells (MSC) synergistically to prevent experimental necrotizing enterocolitis. Nationwide Children's Hospital / Ohio State University Research Week, Columbus, Oh., April 14, 2011

Radulescu A, Yang J, Chen C-L, Zhang H-Y, James I, **Besner G.** Heparin-binding EGF-like growth factor (HB-EGF) improves intestinal barrier function and reduces mortality in a murine model of peritonitis. Nationwide Children's Hospital / Ohio State University Research Week, Columbus, Oh., April 14, 2011

**Brigstock, DR.** Scar Wars. Carol Goldsmith Memorial Science Lecture, Wellington School, Columbus, Oh., November 4, 2010

**Fabia R.** Burns. Critical Care Fellow Lecture Nationwide Children's Hospital, Columbus, Oh., April 2010, January 2011

**Fabia R.** Burns. Acute Care Lecture Series for Pediatric Residents, Nationwide Children's Hospital, Columbus, Oh., August 2010

**Fabia R.** Pediatric Burn, Educational Conference and Exhibition - The Ohio Fire & EMS Expo Lecture, Columbus, Oh., September 2010

**Fabia R.** Treatment of the major burn in a child - Trauma Grand Round Series, Columbus, Oh., January 2011

**Fabia R.** Pediatric burn injury: Management of small to moderate burns evaluated in the emergency department. Pediatric Emergency Medicine Conference-Lecture, Columbus, Oh., April 2011

**Kenney BD.** Pediatric benchmarking. The Ohio State University, Columbus, Oh., October 2010

**Kenney BD.** Mediastinal masses. Nationwide Children's Hospital, Columbus, Oh., September 2010

**Nwomeh BC.** Common lumps, bumps, and lymphadenopathy. *Outreach Education and Networking Conference*. Nationwide Children's Hospital, Columbus, Oh., April 21, 2010

**Nwomeh BC.** Abdominal wall defects. Neonatal Grand Rounds. Nationwide Children's Hospital, Columbus, Oh., January 7, 2011

**Nwomeh BC.** Association for Nigerian Physicians in the Americas, Annual Meeting, Washington DC, July 2, 2010 (Moderator, Oncology session)

**Nwomeh BC.** Fundamentals of Research and Career Development Course. Association for Academic Surgery, Abuja, Nigeria, November 8-9, 2010 (Course Director)

**Nwomeh BC.** Minimally Invasive Surgery Workshop. Association for Academic Surgery, Abuja, Nigeria, November 10-11, 2010 (Course Director)

**Teich S.** When the skin falls apart, neonatal blistering disorders. NCH Regional Neonatal Conference, Nationwide Children's Hospital, Columbus, Oh., May 25, 2011

## Distinguished Visiting Professors

### **R. Lawrence Moss, MD.**

H. William Clatworthy Visiting Professor in the Division of Pediatric Surgery, September 21-23, 2010. Robert Pritzker Professor, Surgery and Pediatrics, Yale University School of Medicine, New Haven, Connecticut.

**Presentation:** Pediatric Grand Rounds: Connecting your head to your NEC: Improving Outcomes for Babies with Bowel Perforation.

### **Randall S. Burd, MD.**

Visiting Professor in Critical Care, November 17-18, 2010. Associate Professor of Surgery and Pediatrics, George Washington University School of Medicine and Health Sciences, Washington, DC.

**Presentation:** Improving the Care of the Injured Child in a Prehospital and Emergency Department Setting.

## Department of Plastic Surgery





# Plastic Surgery



**Michael J. Miller, MD**  
Chair, Department of Plastic Surgery

**T**he past four years have been extremely productive for the Department of Plastic Surgery at The Ohio State University. The continual growth trajectory of our business and the development of state-of-the-art technology designed for the care of our patients has been the driving force for our team's continued expansion of our faculty, providers, and services. In addition, the reputation of the entire Plastic Surgery product line has been rapidly expanding and there have been many significant achievements within the clinical, research, and teaching arenas.

In clinical care our guiding principle is to provide services that are fully integrated into a multi-disciplinary environment within an academic medical center, as well as providing readily available reconstructive surgery services to other specialists at the University Hospital, Ross Heart Hospital, James Cancer Hospital, and Nationwide Children's Hospital. Our surgical volumes, billings, and revenues reached record levels again in fiscal year 2011. Some cases performed this year have never before been performed at The Ohio State University. Our physicians are among the first to use new robotic technologies in the operating room. In addition to advanced techniques for reconstructive surgery, we continue to offer state-of-the-art aesthetic surgery as an essential part of a comprehensive clinical service in plastic surgery.

We successfully recruited four new members to the full-time faculty this year, increasing the number of faculty in our department faculty to fifteen:

- Dr. Maya Spaeth joined our faculty at Nationwide Children's Hospital. She will serve as the Co-director of the Hand, Microsurgery, and Brachial Plexus Center at Nationwide Children's Hospital.
- Adrian Baylis, PhD, CCC-SLP is a Speech Scientist and Speech-Language Pathologist who joined Nationwide Children's Hospital as Director, Resonance Disorders Program and Co-Director, 22q11 Deletion Syndrome Center

- Dr. Melissa Kinder joined the faculty after successfully completing her Plastic Surgery Residency here at OSU. She has an interest in pursuing a hand fellowship in the future.
- Alok Sutradhar, PhD is our post-doctoral researcher in advanced technology applications in surgery. He joined our Department as an Assistant Professor this spring. Dr. Sutradhar also has a faculty appointment in the Department of Mechanical and Aerospace Engineering at OSU.
- In addition, we are in the process of recruiting two more physicians, a hand specialist and a microsurgeon, further expanding the expertise and capability of Ohio State Plastic Surgery.

With the addition of these four new faculty members, the OSU Department of Plastic Surgery is now a full-service academic plastic surgery group of thirteen practicing physicians making it one of the largest plastics surgery programs in the nation. Our success in recruiting additional faculty members helped us achieve our goal of becoming a Department at The Ohio State University.

In order to support this growth in faculty, we have added several key staff members in administration and clinic to our organization. Melanie Dickman, Administrative Associate, Heather Graley, RN, Stacey Seibert, Education Coordinator all joined us this year. We will also be finalizing the addition of a new Clinic Manager and Human Resources Specialist.

Our mission remains to “restore, repair and make whole those parts which nature had given but fortune has taken away.” Our program’s primary objective is restoring wholeness to people suffering from physical deformities through integrated programs in patient care, education and research in the field of Plastic Surgery. Our vision is to foster and build partnerships with other academic disciplines and hospitals as well as our patients and the community to develop our program to become nationally and internationally renowned.

Due to our significant academic and clinical growth this year, we have opened a new multidisciplinary clinic at the James Breast Center, in addition to our locations at Gowdy Field, Nationwide Children’s Hospital and Easton Town Center. The formalization of our Department status at The Ohio State University Medical center makes us one of a handful of such programs in the country, and one of the largest. Department status has several advantages, not the least of which is enhanced recognition as a leader in our field- regionally, nationally and internationally. We look to continue this momentum and represent the Institution in a positive light, currently and in the future.

Our priorities for the upcoming year include:

- Utilize and enhance our Departmental status at The Ohio State University
- Continue to work toward financial stability
- Actively recruit key faculty in integral areas of the department, especially in research
- Foster academic development of current faculty
- Continue to refine clinical care processes
- Establish a high risk treatment center within our clinic at Gowdy Field
- Utilize a multi-media approach to further publicize our unique clinical services
- Expand our basic and translational research programs in wound healing, biocomputation, regenerative medicine, and clinical science.



### **Clinical services**

Our clinical services continue to expand both in volume and scope.

Dr. Gregory Pearson continues to have a very active practice in General Plastic Surgery, particularly in facial trauma and pediatric plastic surgery. He assumed all responsibility for performing surgery on patients through the Craniofacial Clinic at Nationwide Children's Hospital upon Dr. Ruberg's retirement and served well in this position. In addition, his assistance with the residency program is of tremendous help to the Director. Dr. Pearson is projected to take over as Program Director in 2012. He also organized the Tri-State Craniofacial Meeting that was held in Columbus in October, 2010.

Dr. Pankaj Tiwari completed his fourth year here at Ohio State and he has continued to perform beyond our expectations. His clinical practice volume has grown such that he is at the top of our department. He has also grown in his management and leadership skills and has been an effective Clinical Affairs Director. Dr. Tiwari also acts as the lead advisor for our Communication and Marketing projects which includes our departmental website. He has also represented the Department and University internationally, with several trips to India.

Our Easton office location has become very successful under the leadership of Dr. Anne Taylor, who has now been a part of the Department's faculty for three years. Dr. Taylor serves as the Aesthetic Director of our program as well as the Director of the Resident Cosmetic Clinic. Dr. Taylor also represents our Department and the University by serving on many different committees and leadership positions in local and national Plastic Surgery professional organizations. This year, Dr. Taylor led the effort to create an Aesthetic Fellowship, the first of its kind here at the University.

Dr. James Boehmler has completed his third year with in the Department of Plastic Surgery. Dr. Boehmler is one of five of our reconstructive microsurgeons and his clinical volumes have grown tremendously over this past year. Dr. Boehmler has contributed greatly to the Department by establishing our microsurgery laboratory and by serving as the Department's Finance Director. In addition, he serves on several critical committees including OpTime and Epic which are crucial roles as these two systems were implemented in our department in August 2009. Dr. Boehmler will also serve the Department as Vice Chair of Operations, as well as coordinate the upcoming IHIS transition as our Departmental Super User.

The Department was delighted this year to join forces with the Department of Orthopedics to create the Microsurgery Training Center based at the multidisciplinary Hand Center. We also anticipate adding an additional plastic surgery hand specialist. This will continue the tradition of cooperation that is encouraged here at Ohio State.

The Department has continued our strong alliance with Nationwide Children's Hospital, which is under the direction of Dr. Richard Kirschner. OSU Plastic Surgery assisted with the recruitment of a new pediatric plastic surgeon, Dr. Maya Spaeth. Dr. Adrian Baylis also joined the team as a speech pathologist working with resonance disorders and 22q11 deletion syndrome. Over the past year, nearly all of our full-time faculty members have provided general plastic surgery and clinical services at Children's. OSU Plastic Surgery continues to work with Children's Hospital to conduct two major multidisciplinary clinical programs. The Craniofacial Clinic has been staffed primarily this year by Dr. Gregory Pearson who has

been assisted by Dr. Robert Ruberg. This program has been very successful and continues to grow in patient volume. In addition, Dr. Gayle Gordillo has continued to direct the multidisciplinary Vascular Malformations Clinic that serves as a center for patient care as well as clinical and basic translational research.

## Research

Mirroring our developments in clinical care, our talented faculty are expanding in clinical, basic, and translational research.

Dr. Gordillo serves as our dedicated clinical researcher and has been quite productive and successful this year. She has continued developing her successful research program in wound healing and vascular malformations. She has furthered her national chronic wound tissue bank and has made important contributions in wound healing and vascular malformations research. Dr. Gordillo has been appointed as Vice Chair of Research for our Department, coordinating all basic, translational, and clinical research for Plastic Surgery.

Alok Sutradhar, PhD., our post-doctoral researcher in advanced technology applications in surgery, joined our Department as an Assistant Professor this Spring. He also has a faculty appointment in the Department of Mechanical and Aerospace Engineering at OSU. He has been working on several different project areas including : 1) Measuring skin elasticity and skin thickness of the female breast in order to create a physics-based simulation of the breast for surgical planning, teaching, and outcomes prediction. 2) Developing patient-specific optimal layout of reconstructed craniofacial region subject to constraints using topological optimization methods. 3) Developing a mathematical model to predict successful tissue transfer method based on blood vessel diameter, tissue volume and oxygen delivery. 4) Computer simulations to predict breast augmentation surgeries, i.e., mastopexy and implant reconstruction and 5) Developing a framework designed for an objective assessment score for selection of appropriate type of breast reconstructive surgery. These ongoing projects have resulted in two article publications (one in *Proceedings of the National Academy of Sciences*) and another two article submissions. He has given two invited talks (i.e., Penn State, U Pittsburgh) and two presentations (ASME Congress IMECE). His research has been highlighted in 'The Economist', 'Spiegel Online', 'Science update', 'Smart Planet' among other places. He has served multiple times this year on grant review study sections at NSF. He is also an active member of the ASME technical committee on Mechanics in Biology and Medicine. He has organized a symposium on 'Mechanics in Cancer' which was sponsored by NCI. We still have plans to recruit a more senior full-time research scientist to serve as our Research Director.

Dr. Ergun Kocak has completed his second year as one of our microsurgery faculty members with in the Department of Plastic Surgery. Dr. Kocak has proven to be a tremendous asset to our Department as he is a capable clinician and a promising researcher. He has presented his research at the ASRM annual meeting in January 2011. Methodology developed from Dr. Kocak's laboratory has also been disclosed to The Ohio State University Office of Technology and Licensing and is being reviewed for patentability at this time. Dr. Kocak has had three peer reviewed manuscripts published in *Plastic and Reconstructive Surgery Journal* within the last 12 months. A fourth paper outlining his laboratory work is under review

at this time. He is also in the data accrual phase for a human trial that will compare CT angiograms to intraoperative perforator vessel anatomy in autologous DIEP flap breast reconstruction cases.

**Education**

We made significant advances in our education program.

Under the direction of Dr. Michael Miller as Program Director and Dr. Gregory Pearson as Associate Program Director the Department initiated the 3rd year of a 6-year integrated residency program. The program has experienced unprecedented success in recruiting the very best match candidates from around the country and world.

We have continued to enhance our communication with the community faculty through social events, a monthly community faculty meeting and a city-wide M&M conference as well as establishing a local professional society, the Columbus Society of Plastic Surgeons. Our visiting professors this past year have all spoken at the Columbus Society of Plastic Surgeons and this has drawn exposure to Ohio State and what our faculty has to offer to the community.

## Faculty

**Michael J. Miller, MD**

Professor of Surgery; Chair, Department of Plastic Surgery

**BS:** University of Massachusetts, Boston, Ma., 1978

**MD:** University of Massachusetts, Boston, Ma., 1982

**Specialty Training:** General surgery, Berkshire Medical Center, Pittsfield, Mass.; plastic surgery, The Ohio State University, Columbus, Oh.; reconstructive microsurgery, Tulane University, New Orleans, La.

**Appointment:** 2007

**Specialty Interests:** Reconstructive surgery for cancer patients

**Research Interests:** Tissue repair and regeneration and applications of advanced technology in clinical surgery



Miller

**Adriane L. Baylis, PhD, CCC-SLP**

Assistant Professor of Surgery

**BS:** Marquette University, Milwaukee, Wi., 2001

**PhD:** University of Minnesota, Minneapolis, Mn., 2007

**Specialty Training:** Speech, hearing, language sciences

**Appointment:** 2011

**Specialty Interests:** Resonance disorders, 22q11 deletion syndrome



Baylis

**James H. Boehmler, IV, MD**

Assistant Professor of Clinical Surgery

**BA:** University of Chicago, Chicago, Il., 1997

**MD:** University of Rochester, Rochester, NY, 2001

**Specialty Training:** Plastic surgery, Georgetown University, Washington, D.C., 2007; fellowship in reconstructive microsurgery, University of Texas M.D. Anderson Cancer Center, Houston, Tx., 2008

**Appointment:** 2008

**Specialty Interests:** Oncologic reconstructive surgery



Boehmler

**Gayle M. Gordillo, MD**

Associate Professor of Surgery

**AB:** Stanford University, Stanford, Ca., 1984

**MD:** The Ohio State University, Columbus, Oh., 1990

**Specialty Training:** Plastic surgery, The Ohio State University, Columbus, Oh., 1999

**Appointment:** 1999

**Specialty Interests:** Burns, complex wounds

**Research Interests:** Angiogenesis



Gordillo

**Brian A. Janz, MD**

Assistant Professor of Clinical Surgery

**BA:** University of Dayton, Dayton, Oh., 1997

**MD:** Medical College of Ohio, Toledo, Oh., 2001

**Specialty Training:** General surgery, Harvard Medical School at Beth Israel Deaconess Medical Center, Boston, Ma.; Plastic/reconstructive surgery, Baylor College of Medicine, Houston, Tx., 2008; Hand/microsurgery, Curtis National Hand Center, Baltimore, Md.

**Appointment:** 2009

**Specialty Interests:** Oncologic reconstructive surgery



*Janz*

**Melissa R. Kinder, MD**

Assistant Professor of Surgery

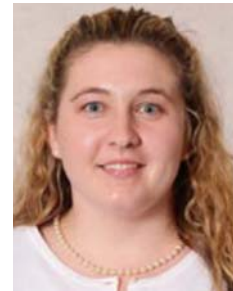
**BS:** Butler University, Indianapolis, In., 2002

**MD:** Southern Illinois University School of Medicine Springfield, Il., 2006

**Specialty Training:** Plastic Surgery Resident, The Ohio State University, 2011

**Appointment:** 2011

**Specialty Interests:** Hand surgery



*Kinder*

**Richard E. Kirschner, MD**

Professor of Clinical Surgery

**BA:** University of Miami, Miami, Fl., 1985

**MD:** University of Miami School of Medicine, Miami, Fl., 1989

**Specialty Training:** Plastic surgery, University of Pennsylvania, Philadelphia, Pa., 1997; Reconstructive microsurgery, Children's Hospital of Philadelphia, Philadelphia, Pa., 1998

**Appointment:** 2010

**Specialty Interests:** Craniofacial disorders and cleft lip



*Kirschner*

**Ergun Kocak, MD**

Assistant Professor of Surgery

**BA:** University of Michigan, Ann Arbor, Mi., 1996

**MD:** The Ohio State University, Columbus, Oh., 1998

**Specialty Training:** Plastic surgery, The Ohio State University, Columbus, Oh., 2008; Reconstructive microsurgery, MD Anderson Cancer Center, Orlando, Fl., 2009

**Appointment:** 2009

**Specialty Interests:** Oncologic reconstructive surgery



*Kocak*

**Gregory D. Pearson, MD**

Assistant Professor of Clinical Surgery

**BS:** Ohio University, Athen, Oh., 1994

**MD:** The Ohio State University, Columbus, Oh., 1998

**Specialty Training:** Plastic surgery, The Ohio State University, Columbus, Oh., 2004; Fellowship in craniofacial surgery, Riley Hospital for Children, Indianapolis, In., 2005

**Appointment:** 2005

**Specialty Interests:** Craniofacial disorders



*Pearson*

**Brian S. Porshinsky, MD**

Assistant Professor of Surgery

**BA:** The Ohio State University, Columbus, Oh., 1991

**MD:** Medical College of Toledo, Toledo, Oh., 1999

**Specialty Training:** Reconstructive surgery, University of Illinois, Chicago, Il., 2007; Burn surgery, New York-Presbyterian Hospital/Weill Cornell Medical Center, New York, NY, 2008; Surgical critical care, The Ohio State University Medical Center, Columbus, Oh., 2009

**Appointment:** 2009

**Specialty Interests:** Acute burn care, fluid resuscitation after burns



*Porshinsky*

**Robert L. Ruberg, MD**

Professor of Surgery; Senior Vice Chairman for Administrative Affairs, Department of Surgery

**BA:** Haverford College, Haverford, Pa., 1963

**MD:** Harvard Medical School, Cambridge, Ma., 1967

**Specialty Training:** Hospital of the University of Pennsylvania, Philadelphia, Pa.

**Appointment:** 1975

**Specialty Interests:** Breast surgery, pediatric plastic surgery

**Research Interests:** Plastic surgery education, curriculum development



*Ruberg*

**Michael Ruff, MD**

Clinical Associate Professor of Orthopedics

**BA:** The Ohio State University, Columbus, Oh., 1974

**MD:** The Ohio State University, Columbus, Oh., 1979

**Specialty Training:** Plastic surgery, The Ohio State University, Columbus, Oh., 1984; Hand/microsurgery, University of Louisville, Louisville, Ky., 1985

**Appointment:** 2009

**Specialty Interests:** Hand surgery



*Ruff*



**Maya Spaeth, MD**

Assistant Professor of Surgery

**BSc:** University of British Columbia, Canada, 1995

**MD:** University of Calgary, Canada, 2000

**Specialty Training:** Plastic surgery fellowship, The Ohio State University, 2007; hand fellowship, Baylor College of Medicine, 2008

**Appointment:** 2010

**Specialty Interests:** Microsurgery, pediatric hand surgery



*Spaeth*

**Alok Sutradhar, PhD**

Assistant Professor of Surgery

**BS:** Bangladesh University of Engineering and Technology, Bangladesh, 1995

**MS:** Bangladesh University of Engineering and Technology, Bangladesh, 1999

**PhD:** University of Illinois at Urbana-Champaign, IL., 2005

**Specialty Training:** Postdoctoral research fellow, MD Anderson Cancer Center, 2006; Postdoctoral Researcher: The Ohio State University, 2007-2010

**Appointment:** 2011

**Specialty Interests:** Patient-specific modeling for bio-mechanical problems, topology optimization for designing craniofacial bone replacements, breast biomechanics

**Research Interests:** Modeling of oxygen transport and blood flow in reconstructive surgery, breast biomechanics, morphometry and aesthetics, cancer modeling



*Sutradhar*

**Anne Taylor, MD**

Associate Professor of Clinical Surgery

**BS:** Dennison University, Granville, Oh., 1986

**MD:** The Ohio State University, Columbus, Oh., 1990

**Specialty Training:** Plastic surgery, The Ohio State University Medical Center, Columbus, Oh., 1996

**Appointment:** 2007

**Specialty Interests:** Aesthetic surgery



*Taylor*

**Pankaj Tiwari, MD**

Assistant Professor of Clinical Surgery

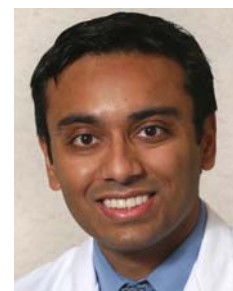
**BA:** Harvard University, Boston, Ma., 1995

**MD:** New York University, New York, NY, 2000

**Specialty Training:** Plastic surgery, Baylor College of Medicine, Houston, Tx., 2006; fellowship in reconstructive microsurgery, M. D. Anderson Cancer Center, Houston, Tx., 2007

**Appointment:** 2007

**Specialty Interests:** Aesthetic surgery and reconstructive microsurgery



*Tiwari*



## Faculty Departure

**William A. Wallace, Jr., MD, MS**

## Emeritus Faculty

**Ronald B. Berggren, MD**

Professor Emeritus of Surgery

**BA:** Johns Hopkins University, Baltimore, Md., 1953

**MD:** University of Pennsylvania, Philadelphia, Pa., 1957

## Clinical Faculty

**Haroon A. Aziz, MD**

Clinical Assistant Professor of Surgery

**FSc:** Forman Christian College, Lahore, Pakistan, 1965

**MBBS:** King Edward Medical College, Lahore, Pakistan, 1970

**Arthur G. Bing, MD**

Clinical Assistant Professor of Surgery

**MD:** Pajaran University, Bandung, Indonesia, 1965

**James W. Farraro, MD**

Clinical Associate Professor of Surgery

**BS:** Western Reserve, Hudson, Oh., 1961

**DDS:** Western Reserve, Hudson, Oh., 1963

**MD:** The Ohio State University, Columbus, Oh., 1967

**Greg Holland, MD**

Clinical Instructor of Surgery

**BS:** Ohio University, Athens, Oh., 1983

**MD:** The Ohio State University, Columbus, Oh., 1987

**Robert S. Houser, DO**

Clinical Instructor of Surgery

**BS:** The Ohio State University, Columbus, Oh., 1993

**DO:** Ohio University, Athens, Oh., 1997

**Jason B. Lichten, MD**

Clinical Assistant Professor of Surgery

**BA:** Brandeis University, Waltham, Ma., 1993

**BS:** University of Pennsylvania, Philadelphia, Pa., 1994

**MD:** Jefferson Medical College, Philadelphia, Pa., 1998

**James D. McMahan, MD**

Clinical Instructor of Surgery

**BS:** University of Oregon, Eugene, Or., 1979

**MD:** Oregon Health and Science University, Portland, Or., 1983

**Gregory E. Morrison, MD**

Clinical Assistant Professor of Surgery

**BA:** Princeton University, Princeton, NJ, 1976

**MD:** Duke University, Durham, NC, 1979

**David S. Postlewaite, MD**

Clinical Assistant Professor of Surgery

**BS:** Williams College, Williamstown, Ma., 1963

**MD:** The Ohio State University, Columbus, Oh., 1967

**Bivik R. Shah, MD**

Clinical Assistant Professor of Surgery

**BS:** University of Michigan, East Lansing, Mi., 1989

**MD:** The Ohio State University, Columbus, Oh., 1994

**Timothy A. Treece, MD**

Clinical Instructor of Surgery

**BS.:** The Ohio State University, Columbus, Oh., 1979

**MD:** The Ohio State University, Columbus, Oh., 1982

**Susan D. Vasko, MD**

Clinical Instructor of Surgery

**BS:** The Ohio State University, Columbus, Oh., 1979

**MS:** The Ohio State University, Columbus, Oh., 1980

**MD:** The Ohio State University, Columbus, Oh., 1986

**Rafael E. Villalobos, DO**

Clinical Assistant Professor of Surgery

**BS:** University of Maryland, Baltimore, Md., 1985

**MSc:** University of Maryland, Baltimore, Md., 1987

**DO:** West Virginia School of Osteopathic Medicine, Lewisburg, WV, 1991

**John K. Wakelin, MD**

Clinical Instructor of Surgery

**BA:** Xavier University, Cincinnati, Oh., 1996

**MD:** The Ohio State University, Columbus, Oh., 2000

## Resident Staff

**Tyler Angelos, MD**

PGY-2

**Joseph Brown, MD**

PGY-2

**Justin Harper, MD**

PGY-1

**Russ Hendrick, MD**

PGY-3

**John Hulsen, MD**

PGY-1

**Allison McAnneny, MD**

PGY-4

**Meghan Nadeau, MD**

PGY-4

**Ted Nagel, MD**

PGY-3

**Maakan Taghizadeh, MD**

PGY-5

**Jonathan Yang, MD**

PGY-4

**Myla Bennett, MD**

PGY-5

**Melissa Kinder, MD**

PGY-5

**Sumita Saha, MD**

PGY-5

Microsurgery Fellows**Kongkrit Chaiyasate, MD****Fred Durden, MD**

PGY-6

**Matthew Talarczyk, MD**

PGY-14

## Mission and Vision

The mission of the Division of Plastic Surgery at The Ohio State University is to restore wholeness to people suffering from physical deformities through integrated programs in patient care, education, and research in the field of plastic surgery. Our vision is to become the world's leading center for the practice, training, and advancement of plastic surgery.

## Basic Science Research Programs

- Kocak E. (Principle Investigator). Gene Directed Enzyme Prodrug Therapy in Gene Modified Muscle Flaps using a Syngeneic Tumor in an Immunocompetent Rat Model. Seed Grant from The American Cancer Society, \$30,000.
- Kocak E. (Principle Investigator). Gene Directed Enzyme Prodrug Therapy in Gene Modified Muscle Flaps using a Human Xenograft Tumor in an Immunodeficient Mouse Model. CCTS Davis Bremer Pilot Award, \$40,000.
- Kocak E. (Principle Investigator). Acquired Ischemia Resistance in Plastic Surgical Flaps using Delta Opioid Receptor Agonists in the Rat Model. Roessler Scholarship for Medical Student Research.
- Kocak E. (Principle Investigator). Acquired Ischemia Resistance in Plastic Surgical Flaps using Delta Opioid Receptor Agonists in the Rat Model. Roessler Scholarship for Medical Student Research.

## Clinical Research Programs

- Gordillo GM. (Principal Investigator) A multicenter randomized, controlled trial examining cellular and tissue oxygenation levels related to various wound healing therapies- KCI USA, Inc. \$124,878.
- Gordillo GM. (Principal Investigator) A Prospective, Multi-Center, Double Blind, Randomized Placebo Controlled Trial to Evaluate the Safety and Efficacy of ICXP007 in a Phase III trial with Four-Layer Therapeutic Compression, for the Treatment of Non-Infected Skin Leg Ulcers due to Venous Insufficiency. FDA Phase III, \$195,304.
- Gordillo GM. (Co-investigator) Efficacy of Natural Vitamin E Tocotrienol on the Treatment of Surgical Scars – Randomized Double-Blinded Placebo Controlled Trial Designed to Assess the Qualitative Effects of Tocotrienol on Scar Healing Outcomes in Plastic Surgery Patients, \$600,000.
- Gordillo GM. (Principal Investigator) Use of dermaPACE (Pulsed Acoustic Cellular Expression) device in conjunction with standard of care in the treatment of diabetic foot ulcers – SanuWave; FDA phase II; \$73,506.
- Kocak E. (Co-investigator). Distal Interphalangeal Joint Arthrodesis with the Herbert Headless Compression Screw: Outcomes and Complications in 67 Consecutively Treated Joints.
- Kocak E. (Co-investigator). A Reliable Method for the Preoperative Estimation of Tissue to be Removed during Reduction Mammoplasty.
- Kocak E. (Principle Investigator). Intraoperative Image-guided Navigation for Determining the Accuracy of Preoperative CT Angiography Used to Locate Perforators for DIEP Flap Breast Reconstruction.
- Kocak E. (Principle Investigator). Breast Aesthetics: Objective Measures Based on 3-D Imaging.
- Kocak E. (Principle Investigator). A Quantitative Doppler Blood Flow Study Comparing End-to-end and End-to-side Venous Anastomoses in Microvascular Free Tissue Transfer.

## Translational Research Programs

- Gordillo GM. (Principal Investigator) Gene Expression Profiles in Healing and Non-Healing Wounds – a large multicenter translational research protocol being implemented at OSU and other wound care centers in the National Healing Corp network that collects wound tissue specimens, medical history and clinical outcomes data to determine patterns of gene expression in healing versus non-healing wounds. Tissue specimens will be evaluated by histology for quality control and then proceed to gene chip analysis on single cell populations using laser capture technology. Data collection and management strategies were incorporated into the protocol, which is also approved by the General Clinical Research Center (GCRC) at OSU. They support the data collection process.
- Gordillo GM. Mechanisms Regulating Wound Vascularization – a Pilot study for the Program Project Initiative Grant to get preliminary data for a planned P50 Center grant submission to NIH to establish a wound healing Center of Excellence at OSU. A \$400,000 seed grant was provided by the Davis Heart and Lung Research Institute to support the development of this proposal. Dr. Gordillo is the clinical core director and wrote the human subjects protocol and supervised development of data management tools to support translational needs of 4 basic science investigators.
- Gordillo GM. (Co-investigator) Mechanisms Underlying Impaired Diabetic Wound Healing (R01). NIH/NIDDK, \$1,200,000. Is a translational protocol looking at the effects of diabetes on macrophage function in wounds. Macrophages are collected from the wound non-invasively using VAC Sponges in a protocol developed jointly by Gayle Gordillo and Sashwati Roy.
- Gordillo GM. The incidence of malnutrition and other risk factors for impaired healing among inpatients with chronic wounds (2007-2009) – ongoing retrospective chart review of patients seen by the inpatient wound consult service.
- Gordillo GM. Isolation of cells and proteins from wound fluid in patients treated with VAC dressings (2006-present) – protocol used to obtain preliminary data for the NIH/NIDDK R01 award and currently being used to acquire preliminary data for planned P50 center grant.
- Gordillo GM. Mechanisms underlying impaired diabetic wound healing (2007- present) – protocol written for the NIH/NIDDK R01 award.
- Miller M, Sutradhar A. Co-Principal Investigator, EAGER: Topological Optimization Methods for Designing Patient-Specific Large Craniofacial Segmental Bone Replacements, NSF CMMI Award # 1032884. \$158,407.

## Accomplishments in Research

- Ergun Kocak, MD, served as a grant reviewer on a national committee of the PSF for the 2011 funding cycle.
- Brian Janz, MD. Awarded: DePuy Academic Enrichment Grant Project: A biomechanical study of metacarpal fracture fixation, 2011, \$10,000
- Gayle Gordillo, MD. Awarded: Mechanisms Regulating Hemangioendothelioma: A Plastic Surgeon's Challenge (R01), NIH/NIGMS, \$1,900,000 (principal investigator)
- Gayle Gordillo, MD. Awarded: Comparison of diabetic foot ulcer limb salvage rates in patients receiving specialized wound care versus standard care at OSUMC (UL1) NIH/NCRR \$37,494. (principal investigator)
- Ergun Kocak, MD. Awarded: OSU Center for Clinical and Translational Science (CCTS) and Richard P. and Marie R. Bremer Medical Research Fund (Davis/Bremer Research Fund) for "Gene Therapy of Plastic Surgical Flap Tissues in a Mouse Xenograft Model to Treat Human Colorectal Tumor Implants", June 2010, \$40,000

## Clinical Programs

- **Hemangioma and Vascular Malformation Clinic** – established and directed by Dr. Gayle Gordillo. Provides comprehensive care to patients with hemangiomas and vascular malformations. This clinic is staffed by four physician providers which includes a dermatologist and an otolaryngologist and two plastic surgeons. The volume of patients seen has also doubled in size and exceeds 400+ patient visits per year.
- **Inpatient Wound Consult Service** – established and directed by Dr. Gayle Gordillo and staffed by Drs. Melissa Kinder and Brian Porshinsky. This service provides expertise in the evaluation and management of inpatients with pressure ulcers, venous stasis ulcers or diabetic foot ulcers. This service sees about 200 patients per year.
- **The Craniofacial Clinic at Nationwide Children's Hospital** is serviced by Dr. Gregory Pearson and Dr. Robert Ruberg.



- **Comprehensive Wound Center (CWC)** – Recognized by OSU Board of Trustees in 10/04, this center was developed by Dr. Gordillo and Dr. Chandan Sen to: 1) accelerate the translation of basic science findings to clinical application, 2) encourage novel partnerships and multidisciplinary approaches to investigate complex problems related to wound repair and regeneration, and 3) use data to develop clinical best practices and become leaders in the field of tissue repair and wound management. The objectives and activities of the CWC adhere to NIH Roadmap guidelines. The CWC was used as a centerpiece in the recently funded OSU proposal for a Clinical and Translational Science award from NIH (\$35,000,000).

## Accomplishments in Clinical Care

- OSU Department of Plastic Surgery is now a full-service, comprehensive Plastic Surgery Program of thirteen physicians making it one of the largest Plastics Surgery Programs in the nation.
- Plastic Surgery joined forces with the Department of Orthopedics to create the OSU Hand Center Microsurgery Training Center.
- Dr. Michael Miller and Dr. Richard Kirschner were named to Best Doctors in America 2010-2011.
- Dr. Pankaj Tiwari performed the first robotic procedures in Plastic Surgery at Ohio State.

## Clinical Statistics

OR Procedures	5,100
Outpatient Visits	6,929
Admissions	502
Patient Days	2,813
Average Length of Stay (Days)	5.60

## Educational Programs

- Plastic Surgery Residency Training Program is now in the 3rd year of our integrated 6-year program. In 2010-2011 the department continued with the new program format. This is an exciting process for our program and is adding great deal of knowledge and experience for our residents. All our residents in the program passed their written exams. It is also consistent with changes in training which are mandated by the ACGME starting in 2010.

- The OSU Department of Plastic Surgery hosted the Second Annual Ruberg Symposium in September 2010. This year's symposium honored Dr. Robert Ruberg as well as focused on the emerging healthcare environment, relevant economic and business concepts pertaining to plastic surgery, and improving outcomes in plastic surgery of breast and aging faces. A highlight of this year's program was a live surgery, simulcast directly to the conference and featuring live Q & A between program participants and the surgeons.

## Accomplishments in Education

- OSU Plastic Surgery Residency Program was fully accredited with no citations at the last ACGME site visit.
- Drs. Anne Taylor, James Boehmler and Michael Miller served as examiners for the American Board of Plastic Surgery examinations in 2010
- OSU Plastic Surgery added four fellowships for the upcoming year: an additional microsurgery fellowship, a pediatric fellowship, an aesthetic fellowship and a hand fellowship in collaboration with the multidisciplinary Hand Center
- Dr. Gayle Gordillo spoke on "Pressure Ulcers Evaluation & Management" OSU MedNet Live CME Webcast, Apr. 2010

## Community Outreach Programs

- Dr. Pankaj Tiwari was a visiting Clinical Professor at Ganga Hospital in Coimbatore, India, April 2011
- Dr. James Boehmler led a Breast Reconstruction Seminar at The Ohio State University that was featured in *Health1 Magazine* in 2010
- Cindy Koutz, PA spoke at a Breast Cancer Survivor meeting in Findlay, OH in 2011

## Accomplishments in Community Outreach

- Gayle Gordillo, M.D. Women of Color Foundation – Annual Conference Panelist “The Impact of Mentoring” May 2010
- Gayle Gordillo, M.D. OSU College of Medicine MD Camp – “The Realities of Surviving as a Minority in Your Profession.” June 2010
- Michael Miller, M.D. Served as an Adjunct Merit Reviewer, Merit Review Subcommittee for Surgery, Department of Veterans Affairs, 2010

## Publications

**Boehmler JH**, Francis SH, Grawe KG, Mayerson JL. Reconstruction of and external hemipelvectomy defect with a two-stage fillet of leg-free flap. *J Reconstr Microsurg* 2010;26(4):271-276.

**Gordillo GM**, Fang H, Park HA, Roy S. Nox-4 dependent nuclear H<sub>2</sub>O<sub>2</sub> drives DNA oxidation resulting in 8-OHdG as urinary biomarker and hemangioendothelioma formation. *Antioxid Redox Signal*. 2010 Apr 15;12(8):933-43

Jacobs BJ, Anzarut A, Guerra S, **Gordillo G**, Imbriglia JE. Vascular anomalies of the upper extremities. *J Hand Surg Am* 2010 Oct;35(10):1703-9

Xu RX, Huang K, Qin R, Huang J, Xu JS, Ding L, Gnyawali US, **Gordillo GM**, Gnyawali SC, Sen CK. Dual-mode imaging of cutaneous tissue oxygenation and vascular function. *J Vis Exp*. 2010 Dec 8;(46). pii: 2095. doi: 10.3791/2095.

Patt BT, Jarjoura D, Lambert L, Roy S, **Gordillo G**, Schlanger R, Sen CK, Khayat RN; Prevalence of obstructive sleep apnea in patients with chronic wounds, *J Clin Sleep Med*. 2010 Dec 15;6(6):541-4.

Miller, SH; Gosain, A; Gurtner, GC; Gutowski, KA; **Ruberg RL**; Salisbury, RE; Smith, DJ Jr., ed. 2011. *The Yearbook of Plastic and Aesthetic Surgery*. Philadelphia, PA, USA: Elsevier Mosby.

Gant J, Ruff M, **Janz BA**. Wrist ganglions. *JHS*. March 2010.

**Janz BA**, Thomas PR, Fanua SP, Dunn RE, Wilgis EFS, Means KR: Prevention of anastomotic thrombosis by botulinum toxin b after acute injury in a rat animal model. *JHS*. Accepted February 2011.

Tyler W, Gnuyen M, **Janz BA**. Abdominal wall anatomy. *E-Medicine*. <http://www.emedicine.com>. October 2010.

Yang, J, **Janz BA**. Microsurgery. *E-Medicine*. <http://www.emedicine.com>. September 2010

## Abstracts

**Porshinsky B**. "Clinical uses of the medicinal leech: A practical review" *Journal of Postgraduate Medicine*, 2010.

## Books

**Gordillo GM**, Sen CK. Endothelial cell tumors: clinical problem, molecular mechanisms and therapeutic opportunities, in *Berries and Cancer Prevention*; Stoner G, Seeram N, eds. Springer, New York, NY.

## Book Chapters

**Boehmler JH**, Butler CE. Aesthetic and reconstructive surgery of the breast: In: Hall-Findlay EJ, Evans GRD (eds), *Latissimus Dorsi Flap Breast Reconstruction*. Elsevier, Chapter 5, 51-60, 2010.

**Boehmler JH**, Attinger CE. Foot and ankle reconstruction. In: McCarthy, ed. *Current Therapy in Plastic Surgery*. Philadelphia, PA: Saunders Elsevier; 2006:666-77.

## Visiting Professorships

**Tiwari P**. was a visiting Clinical Professor at Ganga Hospital in Coimbatore, India, April 2011

**Miller M**. was a visiting professor for the Duke Flap Course, Duke University, Durham, NC, 2010

**Miller M**. served on the faculty for the Mayo Symposium in Reconstructive Surgery, Mayo Clinic, Rochester, Mn., June 23-27, 2010

## National Presentations

**Gordillo GM.** Pressure ulcers evaluation & management. OSU MedNet Live CME Webcast, April 2010

**Gordillo GM.** Topical oxygen therapy. Society for Advanced Wound Care, Orlando, FL., April 2010

**Gordillo GM.** Topical oxygen therapy. University of Illinois at Chicago Center for Wound Healing & Tissue Regeneration, Chicago, IL., May 2010

**Pearson GD.** Panfacial fractures: North America, principles of operative treatment of craniomaxillofacial trauma and reconstruction. Pittsburgh, Pa., May 2010

**Miller MJ.** Program development in oncologic reconstructive surgery; Salvage reconstruction following flap failure; Optimizing aesthetic outcomes in breast reconstruction; Computer-assisted design in planning midface reconstruction; Total esophageal reconstruction with supercharged pedicled jejunal flaps. Symposium in Reconstructive Surgery, Mayo Clinic, Rochester, Mn., June 2010

**Taylor A.** ASAPS Annual Meeting 2010: Instructional Course Presenter: Social media- Can you teach an old dog to tweet; breast asymmetry strategies. Washington, DC, April 2010

**Taylor A.** ASPS 2010 - Health care reform: The long and winding road. Toronto, Ontario, Canada, October 2010

## Miscellaneous Presentations

**Kocak E.** "Discussant. 2010. Connective tissue growth factor production by activated pancreatic stellate cells in mouse alcoholic chronic pancreatitis." 2010 Department of Surgery 15th Annual Research Day Conference, Columbus, Oh., May 2010

**Miller MJ.** Lecturer, Living fully after cancer: The role of breast reconstruction. Stefanie's Champions, Breast Cancer Research Symposium. The Ohio State University Comprehensive Cancer Center, Arthur G. James Cancer Hospital and Solove Research Institute, Columbus, Oh., April 2010

**Miller MJ.** Lecturer, Breast Survivorship Symposium. The Ohio State University Comprehensive Cancer Center, Arthur G. James Cancer Hospital & Solove Research Institute, Columbus, Oh., May 2010

**Gordillo GM.** Multidisciplinary Advances in Treatment of Critically-ill Hospitalized patients (MATCH), Pressure ulcers: Evaluation, management and strategies for prevention. Columbus, Oh., September 21, 2010

**Gordillo GM.** “Clinical implications of basic science of wound healing in the management of diabetic foot ulcers”. HEAL Ohio, Rootstown, Oh., October 21, 2010

**Porshinsky B.** Burn Care and EMS, Berlin Twp Fire Department, Delaware County, Oh., October 27, 2010

**Porshinsky B.** Course Director and Instructor, Advanced Burn Life Support, The Ohio State University Medical Center, Columbus, Oh., June 24, 2010

**Taylor A.** “Health Care Reform” point-counterpoint. 2010 Ruberg Symposium Course Director and Instructor, Columbus, Oh., September 9-10, 2010

## Distinguished Visiting Professors

**Milton Armstrong, M.D.**

Keynote Speaker, 2010 Ruberg Symposium  
September 9 & 10, 2010

**Michael Bentz, M.D.**

Los Angeles, California  
“Total Nasal Reconstruction”  
“Scalp and Skull Reconstruction”  
“Case Vignettes”  
March 10 & 11, 2011

**Malcolm Lesavoy, M.D.**

PSEF Visiting Professor  
“MOHS Facial Reconstruction”  
“Physician Health in Plastic Surgery”  
February 10 & 11, 2011

## Division of Surgical Oncology





# Surgical Oncology



**William B. Farrar, MD**  
Chief, Division of Surgical Oncology

In the Division of Surgical Oncology, all clinical and basic research activities are devoted to the evaluation and management of cancer. The mission of the division is reflected in the mission of The Arthur G. James Cancer Hospital and Richard J. Solove Research Institute. Our goals are to provide excellence in clinical cancer care, educate medical students, resident, and fellows, and to conduct clinical and basic research. Most of the research performed in the division is translational, in which ideas and hypotheses from the laboratory are incorporated into clinical evaluation through the clinical trial mechanism.

The division has added two new faculty members this year. Dr. Abdel-Misih joins us after completing his surgical oncology fellowship here at the James. He will concentrate his clinical and research activities in GI oncology. Dr. Terando also joins us after completing her fellowship at the John Wayne Cancer Institute. She will be working with melanoma patients as well as breast cancer patients. Her clinical research will be mainly in breast cancer.

Dr. Doreen Agnese continues to distinguish herself as an excellent clinician, working mainly in breast cancer, melanoma, and cancer genetics. She participates in our high risk breast cancer clinic as well as leading our genetics program. Dr. Agnese has served as a resident mentor for the past 4 years, and is on the clinical subcommittee of the Center for Women's Health. She serves as principle investigator for the National Melanoma Sentinel Lymph Node Trial. She also serves as a reviewer for The European Journal of Surgical Oncology.

Dr. Mark Bloomston continues to lead our GI surgical oncology program. He is director of translational research in liver cancer and also serves as director of the Surgical Oncology Fellowship program. He recently completed The James IV Surgical Association Traveling Fellowship. He also serves on the biliary cancer guidelines committee of the National Cooperative Cancer Network. He serves as a mentor

to many residents as well as medical students. He continues to have research support from the National Institute of Health K12 award entitled "Translational Training Grant in Experimental Therapeutics". His lab focus's mainly on micro RNA expression and function in pancreatic and esophageal cancer. He also has started numerous data basis including neuro-endocrine tumors, perianapillary cancers, liver cancers, gastric cancers, esophageal cancers, appendiceal cancers, and peritoneal malignancy. He is also very active in clinical trials focusing on areas of interest including pancreatic cancer and hepatocellular carcinoma.

Dr. William Carson, a leader in basic research, continues to serve as associate director of the comprehensive cancer center at The James Cancer Hospital. He also directs the institutional review board at The James and continues as co-director of clinical trials office. Dr. Carson has been instrumental in increasing clinical trial activity at The James the past few years. His efforts have made the cancer hospital a leader in clinical trial participation in the country. He holds numerous grants and recently received an NIH K24 award and an NIH/NCIP01 award. He is instrumental in helping our fellows develop research activities.

Dr. William Farrar is the recipient of the Arthurs G. and Mildred C. James and Richard J. Solove chair in surgical oncology. Breast and thyroid cancer continue to be the focus of his clinical and research activities. Dr. Farrar was also appointed director of the James Care Breast Center, a comprehensive center that makes available all the aspects of the breast cancer diagnosis during one visit, providing mammography, ultrasound, stereotactic breast biopsy, MRI, medical oncology, plastic surgery, radiation medicine, physical therapy, and all other aspects of breast cancer care. He is a past member of the Commission on Cancer of the American College of Surgeons and continues as principal investigator at The Ohio State University Medical Center for the National Surgical Breast and Bowel Project. Dr. Farrar serves on the breast treatment, breast cancer prevention and thyroid cancer guidelines committees of The National Comprehensive Cancer Network. At The James Cancer Hospital, he continues to serve as medical director and also serves on the leadership council which is working toward a major expansion of the James. Dr. Farrar has been listed as a best doctor in America for 8 years.

Dr. William Kraybill continues to be a very active member of the division's clinical activity in melanoma and sarcoma. He joined us in May of 2009 having had a distinguished career at The Roswell Park Cancer Institute where he led the melanoma and sarcoma service for more than 17 years. He continues to serve on a number of radiation therapy oncology group committees and was inducted into the American Surgical Society last year. Because of his distinguished career and experience, he serves as a great mentor for our young faculty, our fellows, as well as residents and medical students.

Dr. Edward Martin is an international leader in gastrointestinal cancer and continues to evaluate the detection of recurrent colon cancer. He participates in a R21 grant entitled "The Probe Assisted PET CT Guided Surgery for Colon Cancer" and received an RO1 for "The Integrated System for Tumor Detection and Targeting Drug Therapy of Cancer". A prolific author, Dr. Martin has authored over 200 publications on different aspects in the detection and surveillance of colon cancer. His research has resulted in numerous national presentations and one of his papers was accepted for presentation last year at the American College of Surgeons Surgical Forum. Dr. Martin continues to be a leader in teaching surgical principles to residents and fellows at The James.

Dr. John Phay recently joined the division of surgical oncology in July of 2009. Dr. Phay specializes in endocrine surgery and joined us after having a distinguished career in endocrine surgery at Vanderbilt University. He has been very active in laboratory research under the mentorship of Dr. Matt Ringel doing research in thyroid cancer. He brings to the division a needed expertise in adrenal tumors, thyroid cancers, and parathyroid disease.

Dr. Stephen Povoski, a leader in breast cancer prevention, continues to serve as director of our High Risk Breast Cancer Clinic. He is a leader in innovative techniques for the treatment in breast cancer and has been the principal investigator on our partial radiation therapy program. Dr. Povoski has also been working with the Division of Nuclear Medicine to evaluate near infrared/ultrasound dual mobile imaging for breast cancer. He is a co-investigator on a pilot study evaluating the combined and integrated technologic approach of 18F-FDG directed peri-operative PET-CT imaging and intra-operative hand held gamma probe detection of neuroendocrine and occult disease in patients undergoing surgery for solid malignancy. He was appointed the principle investigator for the "lymphoseek" radiolabeled tracer program. He continues to serve on a number of editorial boards having recently been named as editor of The World News Journal of Surgical Oncology.

Dr. Carl Schmidt recently joined the Division of Surgical Oncology after completing a fellowship in surgical oncology at the Memorial Sloan Kettering Cancer Institute in New York City. He comes to us with a strong interest in GI malignancy and already has established a very strong clinical practice in this area. He has become an excellent educator, not only for our fellowship program, but for our residents and students. His research includes collaboration with mentors at Ohio State and Industry Partners to develop novel technology for improved local and regional liver therapies. He has three approved IRB protocols to evaluate these technologies. He also is working with Dr. Ron Xu to develop and use heat sensitive micro bubbles to enhance thermal ablation of liver and pancreatic malignancies. He also serves as a consultant and the external advisory board member for Ethicon Endo Surgery for a novel technology called irreversible electroporation which can be used as an ablation modality for solid tumors and may have health related applications.

Dr. Lisa Yee, an excellent clinician and researcher, has a number of translation clinical trials for which she continues to recruit patients. She maintains a very busy practice in breast oncology and serves as our division liaison with the medical students. She continues her basic research in fatty acids and breast cancer prevention.

## Faculty

### **William B. Farrar, MD**

Arthur G. and Mildred C. James and Richard J. Solove Chair in Surgical Oncology; Professor of Surgery; Chief, Division of Surgical Oncology; Director, Medical Affairs, The Arthur G. James Cancer Hospital and Richard J. Solove Research Institute; Director, The James Comprehensive Breast Center

**BA:** Illinois Wesleyan University, Bloomington, Il., 1971

**MD:** University of Virginia, Charlottesville, Va., 1975

**Specialty Training:** The Ohio State University, Columbus, Oh.; Memorial Sloan-Kettering Cancer Center, New York, NY

**Appointment:** 1982

**Specialty Interests:** Breast disease, thyroid disease, head and neck cancer

**Research Interests:** Breast cancer (high-risk breast cancer clinic, clinical studies for the adjuvant treatment of breast cancer, role of stereotactic biopsy for diagnosis, use of sestamibi in breast cancer diagnosis); thyroid cancer (role of aspiration biopsy and follicular neoplasms, extent of surgery for thyroid cancer); parathyroid disease (localization studies using sestamibi and Neoprobe)



*Farrar*



*Abdel-Misih*

### **Sherif R. Z. Abdel-Misih, MD**

Assistant Professor of Surgery, Clinical

**BA:** Franklin and Marshall College, Lancaster, Pa., 1997

**MMS:** MCP Hahnemann University, Philadelphia, Pa., 1999

**MD:** Jefferson Medical College, Philadelphia, Pa., 2003

**Specialty Training:** General surgery residency, Cleveland Clinic Foundation, Cleveland, Ohio; Surgical oncology fellowship, The Ohio State University, Columbus, Oh.

**Appointment:** August 1, 2010

**Specialty Interests:** Gastrointestinal Malignancies, Peritoneal Surface Malignancies & Carcinomatosis, Appendiceal Cancer, Colorectal Cancer, Pancreas Cancer, Sarcoma

**Research Interests:** Peritoneal Surface Malignancies & Carcinomatosis, Appendiceal Cancer, Gastrointestinal Malignancies



*Agnese*

### **Doreen M. Agnese, MD**

Assistant Professor of Surgery and Internal Medicine, Clinical

**MD:** University of Medicine and Dentistry of New Jersey Robert Wood Johnson Medical School, Piscataway, NJ, 1993

**Specialty Training:** General surgery internship and residency, research fellowship, University of Medicine and Dentistry of New Jersey Robert Wood Johnson Medical School, Piscataway, NJ; fellowship in surgical oncology and clinical cancer genetics, The Ohio State University, Columbus, Oh.

**Appointment:** 2004

**Specialty and Research Interests:** Breast cancer, melanoma, cancer genetics, all aspects of surgical oncology

**Mark Bloomston, MD**

Associate Professor of Surgery

**BS:** Florida State University, Tallahassee, FL., 1992

**MD:** University of South Florida, Tampa, FL., 1997

**Specialty Training:** Internship, residency, and research fellowship in general surgery, University of South Florida, Tampa, FL.; fellowship in surgical oncology, The Ohio State University, Columbus, Oh.

**Appointment:** 2006

**Specialty and Research Interests:** Pancreatic and alimentary tract cancers



*Bloomston*

**William E. Carson, III, MD**

Professor of Surgery

**BS:** University of California, Irvine, Ca., 1982

**MD:** University of Southern California, Los Angeles, Ca., 1986

**Specialty Training:** University of California, Irvine, Ca.; Roswell Park Cancer Institute, Buffalo, NY

**Appointment:** 1997

**Specialty Interests:** Breast cancer

**Research Interests:** The role of natural killer cells in septic shock



*Carson*

**William G. Kraybill, MD**

Professor of Surgery

**BA:** Earlham College, Richmond, In., 1965

**MD:** University of Cincinnati, Cincinnati, Oh., 1969

**Specialty Training:** Internship at Santa Clara Valley Medical Center, San Jose, Ca.; Residency and Fellowship at University of Oregon Health Sciences Center, Portland, Or.; Fellowship in Surgical Oncology at Memorial Sloan-Kettering Cancer Center, New York, NY

**Appointed:** 2009

**Specialty Interests:** Malignant melanoma and other aggressive skin cancers, soft tissue sarcomas

**Research Interests:** Clinical trials in tumors, multidisciplinary management of tumors, whole body hyperthermia



*Kraybill*

**Edward W. Martin, Jr., MD**

Professor of Surgery

**BS:** Ohio University, Athens, Oh., 1967

**MD:** Meharry Medical College, Nashville, Tn., 1972

**Specialty Training:** National Institutes of Health training, The Ohio State University, Columbus, Oh.; American Cancer Society Advanced Fellowship, The Ohio State University, Columbus, Oh.

**Appointment:** 1977

**Specialty Interests:** Gastrointestinal malignancies

**Research Interests:** Radioimmunoguided surgery, tumor markers, biologic response modifiers, liver metastatic model, dormant cancer cells, vaccines



*Martin*

**John E. Phay, MD**

Associate Professor of Surgery, Clinical

**BA:** Williams College, Williamstown, Ma., 1987

**MD:** University of California at San Francisco School of Medicine, San Francisco, Ca., 1993

**Specialty Training:** Resident in General Surgery, Washington University School of Medicine, St. Louis, Mo.

**Appointed:** July 1, 2009

**Specialty Interests:** Thyroid cancer, benign thyroid disease, parathyroid disease, multiple endocrine neoplasia, surgical adrenal disease (laparoscopic adrenalectomy)

**Research Interests:** Thyroid cancer, glucose metabolism in malignancy, parathyroid surgical imaging

**Previous Appointment:** Assistant Professor of Surgery, Division of Surgical Oncology and Endocrinology, Vanderbilt University, Nashville, Tenn.



*Phay*

**Stephen P. Povoski, MD**

Associate Professor of Surgery

**BS:** State University of New York, Buffalo, NY, 1985

**MD:** State University of New York Health Science Center, Syracuse, NY, 1989

**Specialty Training:** University of Cincinnati Medical Center, Cincinnati, Oh.; Memorial Sloan-Kettering Cancer Center, New York, NY

**Appointment:** 2001

**Specialty Interests:** Breast cancer, breast diseases

**Research Interests:** Sentinel lymph node mapping and biopsy for breast cancer, image-guided/minimally invasive breast biopsy, high-risk breast cancer clinic, ductal lavage



*Povoski*

**Carl R. Schmidt, MD, MSCI**

Assistant Professor of Surgery, Clinical

**BS:** University of Michigan, Ann Arbor, Mi., 1995

**MD:** University of Michigan, Ann Arbor, Mi., 1999

**MS:** Vanderbilt University, Nashville, Tn., 2004

**Specialty Training:** General surgery residency, Vanderbilt University Medical Center, Nashville, Tn.; surgical oncology fellowship, Memorial Sloan-Kettering Cancer Center, New York, NY

**Appointment:** 2008

**Specialty Interests:** Gastrointestinal and hepatobiliary malignancies

**Research Interests:** Novel therapeutic strategies and imaging modalities for metastatic liver tumors



*Schmidt*



**Alicia M. Terando, MD**

Assistant Professor of Surgery, Clinical

**BA:** University of Virginia, Charlottesville, Va., 1994

**MD:** Medical College of Pennsylvania, Philadelphia, Pa., 1998

**Specialty Training:** General surgery residency, University of Michigan, Ann Arbor, Mi.; Research fellowship, University of Michigan, Ann Arbor, Mi.; Surgical oncology fellowship, John Wayne Cancer Institute, Santa Monica, Ca.

**Appointment:** July 1, 2010

**Specialty Interests:** Surgical and multimodal immunotherapy for high-risk/metastatic melanoma

**Research Interests:** Tissue culture, flow cytometry, murine experimental techniques



Terando

**Lisa D. Yee, MD**

Associate Professor of Surgery, Clinical

**BA:** University of California, San Diego, Ca., 1982

**MD:** Yale University, New Haven, Cn., 1986

**Specialty Training:** Mount Sinai Medical Center, Miami, Fl.

**Appointed:** 1996

**Specialty Interests:** General surgical oncology

**Research Interests:** Tumor progression and metastasis



Yee

## New Faculty Appointments

**Sherif R. Z. Abdel-Misih, MD**

Assistant Professor of Surgery, Clinical

Appointment: August 1, 2010

**Alicia M. Terando, MD**

Assistant Professor of Surgery, Clinical

Appointment: July 1, 2010

## Faculty Departures

**Wiley W. "Chip" Souba, Jr, MD**

Professor of Surgery; Dean, The Ohio State University College of Medicine; Vice President for Health Sciences, The Ohio State University Medical Center

Date of resignation: September 30, 2010

Current appointment: Dean, Dartmouth Medical School; Vice President for Health Affairs, Dartmouth College, Hanover, NH



## Resident Staff

### **David Arrese, MD**

PGY-7

**BS:** Instituto Tecnologico de Santo Domingo, Dom Rep. 1998

**MD:** Instituto Tecnologico de Santo Domingo, Dom Rep. 2002

### **Ravi J. Chokshi, MD**

PGY-7

**BA:** Ursinus College, 1999

**MD:** Ross University School of Medicine, 2003

### **Natalie Jones, MD**

PGY-6

**BA:** The University of Virginia, Charlottesville, VA 2000

**MD:** The Ohio State University, Columbus, OH 2004

### **Megan McNally, MD**

PGY-6

**Combined 6 year BLA-MD:** University of Missouri at Kansas City, Kansas City Missouri, 2005

## Mission

The Division of Surgical Oncology is dedicated to the evaluation and management of cancer and to cancer research and education.

## Accomplishments in Research

- Faculty members in the division published 32 articles, abstracts, and chapters.

## Active Research Grants

**Agnese DM.** A phase 3, multicenter, randomized trial of sentinel lymphadenectomy and complete lymph node dissection versus sentinel lymphadenectomy alone in cutaneous melanoma patients with molecular or histopathological evidence of metastases in the sentinel node. John Wayne Cancer Institute, June 1, 2006 – October 30, 2011, \$46,585.

**Bloomston M.** A phase 3, randomized, double-blind, placebo-controlled study of sorafenib as adjuvant treatment for hepatocellular carcinoma after surgical resection or local ablation. Covance, Inc., January 22, 2009 – December 31, 2013, \$23,254.

**Bloomston M.** Translational training grant in experimental therapeutics. National Institutes of Health, National Cancer Institute, September 9, 2008 – July 31, 2013, \$122,625/year.

**Bloomston M.** “Molecular mechanisms of muscle wasting in cancer cachexia.” National Institutes of Health (64000000). June 2009 – November 2014.

**Bloomston M.** “MicroRNA-21 expression and function in pancreatic adenocarcinoma.” National Cancer Institute (64000002). April 2009 – March 2014.

**Bloomston M.** “Novel JAK2/STAT3 inhibitors for pancreatic cancer therapy.” Research Institute at Nationwide Children’s Hospital (20010182). January 2010 – December 2013.

**Bloomston M.** “Phase II trial of selective internal radiotherapy (SIRT) using sir-spheres microspheres for metastatic neuroendocrine carcinoma.” Doris Duke Charitable Fdn (20012075). August 2009 – July 2012.

**Bloomston M.** “(ARRA-RC1) Evaluation pre and post analytical parameters on the quality of remnant surgical tissue for biomarker discovery.” National Institutes of Health (64000000). October 2009 – September 2011.

**Bloomston M.** “(ARRA) Identification of noncoding RNA biomarkers from tissue, serum and urine of patients with pancreatic precancerous lesions.” National Cancer Institute (64000002). September 2009 – September 2011.

**Bloomston M.** “MicroRNA-21 expression and function in pancreatic adenocarcinoma.” American Association For Cancer Research. July 2009 – July 2011, \$35,000.

**Carson WE III.** ADV-TK therapy in combination with surgery and chemoradiation for pancreas cancer. Advantagene, Inc., January 8, 2008 – December 31, 2012, \$28,997.

**Carson WE III.** Enhancement of cetuximab-induced antibody-dependent cellular cytotoxicity (ADCC) with lenalidomide in advanced solid tumors: A phase 1 study, May 5, 2011 – June 30, 2012, \$50,000.

**Carson WE III.** Cetuximab therapy of pancreatic cancer: immune modulation with IL-21. National Cancer Institute, through August 2011, \$337,430

**Carson WE III.** Phase 1 trial with two HER-2 B-cell epitope vaccine in patients with solid tumors. National Cancer Institute, through July 2012, \$660,000.

**Carson WE III.** A biobehavioral intervention for patients with breast cancer recurrence. National Cancer Institute, through February 2012, \$363,000.

**Carson WE III.** SOCS proteins as inhibitors of immune surveillance in the melanoma microenvironment. National Cancer Institute, through August 2012, \$453,500

**Carson WE III.** Microfluidic synthesis of nanoparticle for oligonucleotide delivery. National Cancer Institute, through May 2011, \$348,764.

**Carson WE III.** Phase II, multicenter, randomized, double-blind, placebo-controlled trial evaluating the efficacy and safety of bevacizumab in combination with carboplatin and paclitaxel chemotherapy. Genentech, through June 2011, \$53,700

**Carson WE III.** Novel micro/nanofluidic electroporation devices for DNA and oligonucleotide delivery. National Biomedical Imaging and Bioengineering, through August 2011, \$383,300.

**Carson WE III.** A phase I study of PS-341 (bortezomib velcade) and interferon-alpha-2b in malignant melanoma. Millennium Pharmaceuticals, Inc., through June 2011, \$99,800.

**Carson WE III.** Effect of IL-21 on antibody-dependent cellular toxicity mediated by an HER2/neu antibody and NK cell against breast carcinoma cells *in vitro* and *in vivo*. Zymogenetics, Inc., April 14, 2004 – July 31, 2011, \$74,600.

**Carson WE III.** A phase 1, open-label, dose escalation study of ANA773 tosylate, an oral prodrug of a toll-like receptor-7 agonist, in patients with advanced cancer. Anadys Pharmaceuticals, Inc., June 2, 2008 – December 31, 2012, \$65,000.

**Carson WE III.** Tumor immunology. National Cancer Institute, June 1, 2008 – May 31, 2013, \$224,780.

**Eubank T, Carson WE III, Marsh CB, Ostrowski MC.** The mechanisms of GM-CSF inhibition of breast cancer growth and metastasis. National Cancer Institute, September 5, 2008 – August 31, 2010, \$5,241.

**Farrar WB.** Breast and bowel treatment protocols agreement. NSABP Fdn., Inc, through January 2012, \$624,690.

**Farrar WB.** Breast and bowel treatment protocols agreement (continuation). NSABP Fdn., Inc, through January 2012, \$197,230.

**Farrar WB.** Study of tamoxifen and raloxifene (STAR trial). NSABP Fdn., Inc, May 31, 2009 – March 3, 2011, \$796,010

**Povoski SP.** A phase 4 study to evaluate the long-term impact of identifying tumor-draining lymph nodes using lymphoseek in patients with breast cancer or melanoma. Neoprobe Corporation, through October 31, 2011, \$9,250.

**Lee LJ, Carson WE III, Lee RJ, Marcucci G, Wang S.** Novel micro/nanofluidic electroporation devices for DNA and oligonucleotide delivery. National Institute of Biomedical Imaging and Bioengineering, September 30, 2007 – August 31, 2010, \$10,309.

**Yee LD.** Proteomic analysis of RPFNA cytology. Duke University, May 31, 2010 – March 29, 2011, \$12,600.

**Yee LD.** Prevention of aromatase inhibitor-induced joint symptoms with omega 3 fatty acid supplementation: a randomized placebo controlled pilot study. Brigham and Women's Hospital, Inc., through May 2012, \$114,343.

**Yee LD.** Proteomic analysis of RPFNA cytology. Duke University, through May 2011, \$12,600.

**Yee LD.** Omega 3 fatty acids and breast cancer prevention: protective benefits of increased fish consumption. National Fisheries Institute, through March 2012, \$20,962.

**Yee LD.** Dietary fatty acids, macrophages, and HER-2/neu-mediated mammary carcinogenesis. Army Medical Research Acquisition Activity, September 15, 2008 – September 14, 2011, \$450,000.

**Yee LD.** Markers of short-term contralateral breast cancer risk in women with a history of sporadic breast cancer. National Cancer Institute, November 30, 2010 – April 26, 2011, \$185,464.

## Clinical Programs

- Comprehensive surgical oncology service provides leadership for multimodality programs; breast, endocrine, gastrointestinal, melanoma, neuroendocrine and sarcoma.

## Accomplishments in Clinical Care

- Attending faculty in the division performed 4,474 operating room procedures and received 18,299 outpatient visits.

## Clinical Statistics

OR Procedures	4,474
Outpatient Visits	18,299
Admissions	859
Patient Days	5,545
Average Length of Stay (Days)	7.93

## Educational Programs

- Two-year fellowship in surgical oncology, which includes 18 months of clinical work and six months of basic research.
- Comprehensive rotation in surgical oncology for third- and fourth-year residents in general surgery.
- Subinternship in surgical oncology.

## Accomplishments in Education

- Completion of the fellowship in surgical oncology by Dr. David Arrese and Dr. Ravi Chokshi.
- Dr. Natalie Jones and Dr. Megan McNally began surgical oncology fellowships.

## Publications

**Abdel-Misih S**, Hatzaras I, Muscarella P, Melvin WS, Ellison EC, **Schmidt S**, **Bloomston M**. Failure of normalization of CA19-9 following resection for pancreatic cancer is tantamount to metastatic disease. *Annals of Surgical Oncology*. April 2011. 18(4); 1116-1121

**Abdel-Misih S**. Editorial - A Scientific Look at Isolated Limb Perfusion: The mechanisms and pathologic effects of regional perfusion in extremity soft tissue sarcoma. *Journal of Surgical Oncology*. April 2011. 103(5), 369-370

**Abdel-Misih S**, Broome J, Li X, **Arrese D**, Chambers EP, Jacobs JK, **Phay JE**. Changing intraoperative parathyroid hormone collection sites from peripheral to central does not affect predictive accuracy during parathyroidectomy. *Annals of Surgical Oncology*. March 2011. 18(3); 771-776

**Abdel-Misih S, Bloomston M.** Liver anatomy. *Surgical Clinics of North America*. August 2010. 90(4); 643-53

Bekaii-Saab T, Phelps MA, Li X, Saji M, Goff L, Kauh JS, O'Neil BH, Balsom S, Balint C, Lierseemann R, Vasko VV, **Bloomston M**, Marsh W, Doyle LA, Ellison G, Grever M, Ringel MD, Villalona-Calero MA. 2011. Multi-institutional phase II study of selumetinib in patients with metastatic biliary cancers. *Journal Of Clinical Oncology*. Vol. 29, no. 17 (June 10): 2357

Bellizzi AM, **Bloomston M**, Zhou XP, Iwenofu OH, Frankel WL. 2010. The mTOR pathway is frequently activated in pancreatic ductal adenocarcinoma and chronic pancreatitis. *Applied Immunohistochemistry & Molecular Morphology*. Vol. 18, no. 5 (October 1): 442

Carlson RW, Allred DC, Anderson BO, Burstein HJ, Carter WB, Edge SB, Erban JK, **Farrar WB**, Forero A, Giordano SH, Goldstein LJ, Gradishar WJ, Hayes DF, Hudis CA, Ljung BM, Mankoff DA; Marcom PK, Mayer IA, McCormick B, Pierce LJ, Reed EC, Sachdev J, Smith ML, Somlo G, Ward JH, Wolff AC, Zellars R. 2011. Invasive breast cancer. *Journal Of The National Comprehensive Cancer Network*. Vol. 9, no. 2 (February 1): 136

Carlson RW, Allred DC, Anderson BO, Burstein HJ, Carter WB, Edge SB, Erban JK, **Farrar WB**, Forero A, Giordano SH, Goldstein LJ, Gradishar WJ, Hayes DF, Hudis CA, Ljung BM, Marcom PK, Mayer IA, McCormick B, Pierce LJ, Reed EC, Smith ML, Somlo G, Topham NS, Ward JH, Winer EP, Wolff AC. 2010. Breast cancer: noninvasive and special situations. *Journal Of The National Comprehensive Cancer Network*. Vol. 8, no. 10 (October 1): 1182

**Carson WE.** Braking bad: blockade of inhibitory pathways improves interleukin-15 therapy. *Clin Cancer Res*. 2010 Dec 15; 16(24):5917-9

Cho D, Kim SK, **Carson WE.** NK cell-based immunotherapy for treating cancer: will it be promising? *Korean J Hematol*. 2011 Mar; 46(1):3-5

Guenterberg KD, Lesinski GB, Mundy-Bosse BL, Karpa VI, Jaime-Ramirez AC, Wei L, **Carson WE.** Enhanced anti-tumor activity of interferon-alpha in SOCS1-deficient mice is mediated by CD4(+) and CD8(+) T cells. *Cancer Immunol Immunother*. 2011 May 21

Hatzaras I, **Schmidt C**, Klemanski D, Muscarella P, Melvin WS, Ellison EC, **Bloomston M**. 2011. Pancreatic resection in the octogenarian: a safe option for pancreatic malignancy. *Journal of The American College of Surgeons*. Vol. 212, no. 3 (March 1): 373

He H, Grignol V, Karpa V, Yen C, LaPerle K, Zhang X, Jones NB, Liang MI, Lesinski GB, Ho WS, **Carson WE**, Lee LJ. Use of a nanoporous biodegradable miniature device to regulate cytokine release for cancer treatment. *J Control Release*. 2011 May 10; 151(3):239-45

Hill ME, Li X, Kim S, Campbell A, Culler K, **Bloomston M**, Zalupski M, Hejna G, Bekaii-Saab T. 2011. A phase I study of the biomodulation of capecitabine by docetaxel and gemcitabine (mGTX) in previously untreated patients with metastatic adenocarcinoma of the pancreas. *Cancer Chemotherapy and Pharmacology*. Vol. 67, no. 3 (March 1): 511

Jaime-Ramirez AC, Mundy-Bosse BL, Kondadasula S, Jones NB, Roda JM, Mani A, Parihar R, Karpa V, Papenfuss TL, LaPerle KM, Biller R, Lehman A, Chaudhury AR, Jarjoura D, Burry RW, **Carson WE**. IL-12 enhances the antitumor actions of trastuzumab via NK cell IFN- $\gamma$  production. *J Immunol*. 2011 Mar 15; 186(6):3401-9

Johnson FE, Sakata K; Sarkar S, Audisio RA, **Kraybill WG**, Gibbs JF, Beitler AL, Virgo KS. 2011. Patient surveillance after treatment for soft-tissue sarcoma. *International Journal Of Oncology*. Vol. 38, no. 1 (January 1): 233

Kauffmann RM, Juhlin CC, Fohn LE, Broome JT, **Phay JE**. 2011. Parathyroid carcinoma arising from four-gland hyperplasia. *Endocrine Practice*. Vol. 17, no. 2 (March 1): e1

**Kraybill WG**, Harris J, Spiro IJ, Ettinger DS, DeLaney TF, Blum RH, Lucas DR, Harmon DC, Letson GD, Eisenberg B. 2010. Long-term results of a phase 2 study of neoadjuvant chemotherapy and radiotherapy in the management of high-risk, high-grade, soft tissue sarcomas of the extremities and body wall: Radiation Therapy Oncology Group Trial 9514. *Cancer*. Vol. 116, no. 19 (October 1): 4613

Lesinski GB, **Carson WE**, Repasky EA, Wei WZ, Kalinski P, Lotze MT, June CH, Petros W, Muthusamy N, Olencki T. Meeting Report: The 13th Annual Meeting of the Translational Research Cancer Centers Consortium (TrC3); Immune Suppression and the Tumor Microenvironment, Columbus, Ohio; March 1-2, 2010. *J Immunother*. 2010 Sep;33(7):659

**Martin EW Jr**, Chapman GJ, Subramaniam VV, and **Povoski SP**: Intraoperative detection of gamma emissions using K-alpha x-ray fluorescence. *Expert Rev Med Devices*, 7(4):431-434, 2010

Mundy-Bosse BL, Thornton LM, Yang HC, Andersen BL, **Carson WE**. Psychological stress is associated with altered levels of myeloid-derived suppressor cells in breast cancer patients". *Cell Immunol*. 2011;270(1):80-7

Mundy-Bosse BL, Young GS, Bauer T, Binkley E, **Bloomston M**, Bill MA, Bekaii-Saab T, **Carson WE**, Lesinski GB. Distinct myeloid suppressor cell subsets correlate with plasma IL-6 and IL-10 and reduced interferon-alpha signaling in CD4(+) T cells from patients with GI malignancy. *Cancer Immunol Immunother*. 2011 May 21

Mundy-Bosse BL, Lesinski GB, Jaime-Ramirez AC, Benninger K, Khan M, Kuppusamy R, Guenterberg K, Kondadasula SV, Ray Chaudhury A, La Perle KM, Kreiner M, Young GS, Guttridge DC, **Carson WE**. MDSC inhibition of the IFN response in tumor-bearing mice. *Cancer Res*. 2011 Jun 16



**Phay JE**, Shah MH. 2010. Targeting RET receptor tyrosine kinase activation in cancer. *Clinical Cancer Research*. Vol. 16, no. 24 (December 15): 5936

**Povoski SP**. From the surgical oncologist's perspective: The ongoing evolution of surgical evaluation and management of the axilla in patients with breast cancer. *Commun Oncol*. 7(11):497-498, 2010

Saber W, Moua T, Williams EC, Verso M, Agnelli G, Couban S, Young A, De Cicco M, Biffi R, van Rooden CJ, Huisman MV, Fagnani D, Cimminiello C, Moia M, Magagnoli M, **Povoski SP**, Malak S, and Lee AY. Independent risk factors of catheter-related thrombosis (CRT) in adult cancer patients: An individual patient-level data (IPD) meta-analysis of randomized clinical trials and prospective cohort study. *J Thromb Haemost*. 9: 312-319, 2011

**Schmidt C**, **Bloomston M**, Shah MH. 2011. Well-differentiated neuroendocrine tumors: a review covering basic principles to loco-regional and targeted therapies. *Oncogene*. Vol. 30, no. 13 (March 31): 1497

Stawicki SP, Prosciak MP, Gerlach AT, **Bloomston M**, Davido HT, Lindsey DE, Dillhoff ME, Evans DC, Steinberg SM, Cook CH. 2011. Atrial fibrillation after esophagectomy: an indicator of postoperative morbidity. *General Thoracic And Cardiovascular Surgery*. Vol. 59, no. 6 (June 1): 399

Tuttle RM, Ball DW, Byrd D, Dilawari RA, Doherty GM, Duh QY, Ehya H, **Farrar WB**, Haddad RI, Kandeel F, Kloos RT, Kopp P, Lamonica DM, Loree TR, Lydiatt WM, McCaffrey JC, Olson JA Jr, Parks L, Ridge JA, Shah JP, Sherman SI, Sturgeon C, Waguespack SG, Wang TN, Wirth LJ. 2010. Thyroid carcinoma. *Journal of the National Comprehensive Cancer Network*. Vol. 8, no. 11 (November 1): 1228

Zou P, **Povoski SP**, Hall NC, Carlton MM, Hinkle GH, Xu RX, Mojzisik CM, Johnson MA, Knopp MV, **Martin EW**, and Sun D: 124I-HuCC49deltaCH2 for TAG-72 antigen-directed positron emission tomography (PET) imaging of LS174T colon adenocarcinoma tumor implants in xenograft mice: Preliminary results. *World J Surg Oncol*. 8: 65, 2010

## Book Chapters

Frankel WL, **Bloomston M**. Clinical indications and surgeons' expectations. In: *Frozen Section Library: Pancreas*. Eds., Frankel WL, Proca DM. New York: Springer, 2011

**Carson WE**. Animal models of malignant melanoma. In: *Tumor Models in Cancer*. Ed., Teicher BA. Human Press, Totowa NJ. Chapter 25, 2010

## International Presentations

**Carson WE.** Choonam National University Hospital 100th Anniversary, Keynote address: Monoclonal antibody therapy of cancer. Gwangju City, South Korea, September 26, 2010

## National Presentations

Arrese D, Feria-Arias E, Hatzaras I, Guy G, Khabiri H, Schmidt C, Shah M, **Bloomston M.** Oral presentation, Survival advantage after transarterial chemoembolization for operable metastatic carcinoid reflects tumor biology rather than efficacy. 96th Annual Clinical Congress of the American College of Surgeons, Washington, DC, 2010

**Arrese D,** Chokshi R, Feria-Arias E, Guy G, Khabiri H, Klemanski D, **Schmidt C,** Shah M, **Bloomston M.** Oral presentation, Presence of extra-hepatic disease should not preclude transarterial chemoembolization for metastatic neuroendocrine tumors. 11th Annual Meeting of the Americas Hepato-Pancreato-Biliary Association. Miami Beach, FL, 2011

**Bloomston M.** Surgical management of hepatic neuroendocrine metastases. 3rd Annual GI/Hepato PancreatoBiliary Oncology Symposium. Wake Forest University, Winston-Salem, NC, April 2011

**Carson WE.** Adventures in tissue acquisition. caBIG® Annual Meeting: Building a Collaborative Biomedical Network Plenary Session: Enabling Translational Research with caBIG®, Washington DC, September 13, 2010

Collins A, **Bloomston M.** Oral presentation, Splenic preservation at the time of distal pancreatectomy is of limited clinical benefit. 2nd Annual National Predoctoral Clinical Research Training Program Meeting, Washington University, St. Louis, Mo., 2010

Collins A, Wojcik S, Croce C, **Bloomston M.** Oral presentation, Pancreatic stellate cells induce overexpression of microRNA-21 and microRNA-210 in pancreatic cancer cells in hypoxia. Sixth Annual Academic Surgical Congress, Huntington Beach, Ca., 2011

Collins AL, Rock J, Malhotra L, Frankel WL, **Bloomston M.** Poster presentation, Osteopontin is associated with improved survival in patients with pancreatic adenocarcinoma. 64th Annual Cancer Symposium of the Society of Surgical Oncology, San Antonio, Tx., 2011

Jones NB, Wakely PE, Klemanski DL, Al-Saif O, Young G, Frankel WL, **Martin EW, Bloomston M.** Poster presentation, Cytopathologic evaluation of the in-situ margin in patients undergoing hepatectomy. 64th Annual Cancer Symposium of the Society of Surgical Oncology, San Antonio, Tx., 2011

**Phay, JE.** Presenter. Hypercalcemia in pregnancy. American Association of Endocrine Surgeons Annual Meeting. Houston, Tx., April 10, 2011

## Miscellaneous Presentations

**Abdel-Misih S.** Cancer palliation: Psychosocial & medical challenge. Department of Surgery Grand Rounds, The Ohio State University Medical Center, Columbus, Oh., April 14, 2011

**Abdel-Misih S.** Presenter, Metastatic mucinous adenocarcinoma. Gastrointestinal Cancers 2010: A Multidisciplinary Approach to Prevention, Diagnosis, And Treatment. Columbus, Oh., October 8, 2010

**Bloomston M.** An institutional approach to neuroendocrine carcinoma. Gastrointestinal Cancer Symposium. Ohio State University, Columbus, Oh., October 2010

**Carson WE.** Small Group Panel: Approaching burnout - How to avoid physician scientist burnout. Inaugural Midwest Regional Meeting of the American Physician Scientists Association. Columbus, Oh., October 30, 2010

Collins A, Wojcik S, Croce C, **Bloomston M.** Oral presentation, Pancreatic stellate cells induce overexpression of microRNA-21 and microRNA-210 in pancreatic cancer cells in hypoxia. Columbus Surgical Society Presidential Symposium, Columbus, Oh., May 2011

Collins A, Wojcik S, Croce C, **Bloomston M.** Poster presentation, Pancreatic stellate cells induce overexpression of microRNA-21 and microRNA-210 in pancreatic cancer cells in hypoxia. 10th Annual OSUMC Research Day, The Ohio State University, Columbus, Oh., June 2011

Collins A, Wojcik S, Croce C, **Bloomston M.** Oral presentation, Pancreatic stellate cells induce overexpression of microRNA-21 and microRNA-210 in pancreatic cancer cells in hypoxia. 16th Annual Department of Surgery Research Conference, The Ohio State University, Columbus, Oh., June 2011

Henry JC, Pouly S, Sullivan R, Klemanski D, Sharif S, **Schmidt C, Bloomston M.** Oral presentation, Albumin level is the primary factor determining outcome from malignant bowel obstruction. American College of Surgeons Ohio Chapter Meeting. Cincinnati, Oh., 2011

**Phay JE.** Presenter. Thyroid nodules and the rising incidence of thyroid cancer. Presented at Grand Rounds. Southern Ohio Medical Center. Portsmouth, Oh., March 18, 2011

**Phay JE, Farrar W,** Teknos T. Controversies in thyroid cancer surgery for residual/recurrent differentiated and medullary thyroid cancer. Panelist. Ernest L. Mazzaferri Thyroid Cancer Conference from Predisposition to Therapy: A Bench to Bedside Symposium. The Ohio State University, Columbus, Oh., November 19, 2011

**Schmidt CR.** Lecturer. Multidisciplinary management of colorectal hepatic malignancies. Presented at Tumor Conference, to Upper Valley Medical Center. Troy, Oh., April, 2011

**Schmidt CR.** Lecturer. Update on Management of GI Stromal Tumors. Presented at Oncology Grand Rounds, to Genesis Healthcare System. Columbus, Oh., January, 2011

Tassone PT, **Arrese D, Bloomston M**. Poster presentation, Expectant management of the asymptomatic primary is safe in patients undergoing chemoembolization for metastatic neuroendocrine carcinoma. 10th Annual OSUMC Research Day, The Ohio State University, Columbus, Oh., 2011

## Distinguished Visiting Professor

### **Daniel Coit, MD, FACS**

Professor of Surgery, Weill-Cornell Medical School

Attending Surgeon and Co-Leader, Melanoma Disease Management Team, Memorial Sloan – Kettering Cancer Center / Sloan Kettering Institute, New York, NY

The 2nd Annual Michael J Walker Memorial Lectureship in Surgical Oncology: “Melanoma – Myths and Misconceptions”

September 3, 2010

## Division of Thoracic Surgery



# Thoracic Surgery



**Patrick Ross, Jr., MD, PhD**  
Chief, Division of Thoracic Surgery

**T**he Division of Thoracic Surgery has had a successful first year in its voyage as a newly created division within the Department of Surgery. We have had ongoing growth in clinical programs, research and scholarship as well as recruitment of faculty. By its nature, Thoracic Surgery is multidisciplinary. This is reflected in the activity of the division. We have developed multidisciplinary teams to support the programs in Thoracic Oncology. This includes strong collaborative efforts within the Lung and Gastrointestinal Disease sites at The James. We share many clinical trials with Medical Oncology as well as Radiation Oncology through CALGB, RTOG, and ACOSOG. This multidisciplinary approach allows us to offer a differentiated product to the patients seeking their care for thoracic oncology at The James. We have had additional growth in our program in photodynamic medicine which is internationally recognized. Ohio State will host a multidisciplinary symposium on photodynamic medicine in May 2012. Our Joint Commission certified Lung Volume Reduction Surgery program excels because of its interdisciplinary structure. We are developing a program for tracheal surgery and reconstruction. This will be led by Vincent Daniel, M.D. who joined our team in January 2011 after completing his training at Johns Hopkins (General Surgery) and Massachusetts General Hospital (Thoracic Surgery).

The faculty have had a productive year with respect to scholarship. Our academic achievements reflect collaborations around the medical center with multiple teams. We have welcomed John Wilson, PhD onto the team; Dr. Wilson, who has trained in cancer epidemiology, has been instrumental in moving our outcomes studies forward. The faculty has published twenty peer reviewed articles and book chapters. We have presented more than a dozen local and regional talks, fifteen national meetings, and three international symposia. The research interests range from clinical outcome studies in lung and esophageal cancer to basic science mechanisms such as mechanism of action for PDT and

studies in T-cell regulation. Our research efforts have consistently included residents and medical students on the team; many of these trainees have participated in the presentations and publications.

The Division of Thoracic Surgery has achieved its goals this year. We look forward to continued growth and success in our clinical and academic missions next year.



## Faculty

### Patrick Ross, Jr., MD, PhD

Professor of Clinical Surgery; Chief, Division of Thoracic Surgery

**AB:** Harvard University, Cambridge, Ma., 1977

**MD, PhD:** St. Louis University, St. Louis, Mo., 1983

**Specialty Training:** University of Pennsylvania, Philadelphia, Pa.

**Appointment:** 1991

**Specialty Interests:** Lung volume reduction, thoracic surgical oncology, benign noncardiac thoracic disease, lung transplantation

**Research Interests:** New modality lung cancer therapy



Ross

### Vincent C. Daniel, MD

Assistant Professor- Clinical

**BA:** Vanderbilt University, Nashville, Tn., 1994

**MD:** University of Tennessee College of Medicine, Knoxville, Tn., 2001

**Specialty Training:** Internship and residency in general surgery, The Johns Hopkins Hospital, Baltimore, Md., 2001-2008; fellowship in thoracic surgery, Massachusetts General Hospital, Boston, Ma., Mayo Clinic, Rochester, Mn., and Memorial Sloan-Kettering Cancer Center, New York, NY, 2008-2010

**Appointment:** January 1, 2011

**Specialty Interests:** Lung cancer, esophageal cancer, tracheal surgery, mediastinal tumors, esophageal motility disorders, minimally invasive thoracic surgery

**Research Interests:** Molecular markers of lung and esophageal cancer, clinical trials for lung and esophageal cancer, animal models of lung cancer



Daniel

### Edmund S. Kassis, MD

Assistant Professor of Surgery

**BS:** University of Pittsburgh, Pittsburgh, Pa., 1992

**MD:** University of Pittsburgh, Pittsburgh, Pa., 1999

Internship and residency in general surgery, The Johns Hopkins Hospital, Baltimore, Md., 1999-2007; fellowship in surgical oncology, Surgery Branch, National Cancer Institute, Bethesda, Md., 2001-2004; fellowship in thoracic surgery, M.D. Anderson Cancer Center, Houston, Tx., 2007-2009

**Appointment:** July 1, 2009

**Specialty Interests:** Thoracic surgical oncology, lung cancer, esophageal cancer, mediastinal masses, minimally invasive thoracic surgery.

**Research Interests:** Thoracic oncology, translational research in lung and esophageal cancer, molecular genetics, staging.



Kassis

**Susan D. Moffatt-Bruce, MD, PhD**

Assistant Professor of Surgery

**BA:** McGill University, Montreal, Quebec, Canada, 1990

**MD:** Dalhousie University, Halifax, Nova Scotia, Canada, 1994

**PhD:** University of Cambridge, Cambridge, United Kingdom, 1999

**Specialty Training:** Residency in general surgery, Dalhousie University, Halifax, Nova Scotia, Canada; fellowship in cardiothoracic surgery, Stanford University, Palo Alto, Ca.

**Appointment:** 2006

**Specialty Interests:** Lung transplant, heart transplant, transplant outcomes, thoracic oncology

**Research Interests:** Transplant immunology



*Moffatt-Bruce*

**John Wilson, PhD**

Research Assistant Professor

**BS:** East Tennessee State University, Johnson City, Tn., 1970

**MS:** State University of New York at Buffalo, Buffalo, NY, 1976

**PhD:** State University of New York at Buffalo, Roswell Park Cancer Institute Graduate Division, Buffalo, NY, 1981

**Appointment:** April 1, 2011

**Research Interests:** Assessing outcomes and cost effectiveness of cancer therapy, primary methodologic interest is in assessing patients' preferences for use in treatment and policy decision-making



*Wilson*

## New Full-Time Faculty Appointments

**Vincent Daniel, MD**

Assistant Professor- Clinical

**John Wilson, PhD**

Research Assistant Professor

## Faculty Departures

**Paul Vesco, MD**

Assistant Professor of Surgery

Date of resignation: December 1, 2010

Current appointment: Cardiothoracic Surgery, Sarasota, FL

## Emeritus Faculty

### **J. Terrance Davis, MD**

Professor Emeritus of Clinical Surgery

**BA:** Williams College, Williamstown, Ma., 1963

**MD:** University of Pennsylvania, Philadelphia, Pa., 1967

### **Gerard S. Kakos, MD**

Clinical Associate Professor Emeritus of Surgery

**BA:** The Ohio State University, Columbus, Oh., 1964

**MD:** The Ohio State University, Columbus, Oh., 1967

### **James W. Kilman, MD**

Professor Emeritus of Surgery

**BS:** Indiana State University, Terre Haute, In., 1956

**MD:** Indiana State University, Indianapolis, In., 1960

### **Charles V. Meckstroth, MD**

Professor Emeritus of Surgery

**BA:** The Ohio State University, Columbus, Oh., 1944

**MD:** The Ohio State University, Columbus, Oh., 1947

**MMSc (Surgery):** The Ohio State University, Columbus, Oh., 1950

### **Howard D. Sirak, MD**

Professor Emeritus of Surgery

**AB:** University of Pennsylvania, Philadelphia, Pa., 1943

**MD:** The Ohio State University, Columbus, Oh., 1947

**MMSc (Surgery):** The Ohio State University, Columbus, Oh., 1953

## Resident Staff

### **Shelley Bansal, MD**

PGY-6

**BS:** Youngstown State University, Youngstown, Oh., 2000

**MD:** Saint Eustatius School of Medicine, Sint Eustatius, Netherlands Dutch Caribbean, 2004

### **Dana Booth, MD**

PGY-6

**BS:** University of California, San Diego, San Diego, Ca., 1997

**MS:** University of California, San Diego, San Diego, Ca., 1999

**MD:** Medical College of Wisconsin, Milwaukee, Wi., 2003

**Sergio Carrillo, MD**

PGY-7

**MD:** Universidad de San Carlos, Guatemala, 2002

**Karen Nelson, DO**

PGY-6

**BS:** Mercer University, Macon, Ga., 1997

**BA:** University of Kentucky, Lexington, Ky., 2000

**DO:** Lake Erie College of Osteopathic Medicine, Erie, Pa., 2005

**Charles Jason Rousseau, DO**

PGY-7

**BS:** Samford University, Birmingham, Al., 2000

**DO:** Nova Southeastern University College of Osteopathic Medicine, Ft. Lauderdale, Fl., 2004

## Mission

The Division of Thoracic Surgery is dedicated to developing and applying multidisciplinary care for malignant and benign diseases of the chest.

## Research Programs

- A Novel Approach to Generate Regulatory T Cells using CD103 Depletion.
- A Prospective Multi-Center Randomized Clinical Study to Evaluate the PleuraSeal Sealant System as an Adjunct to Standard Closure Techniques for Control of Visceral Pleural Air Leaks Following Elective Pulmonary Resection Via Open Thoracotomy.
- Autofluorescence Bronchoscopy.
- Case Analysis on real Life Incidence of PDT Safety Outcomes: Multicentre, observational postmarketing safety surveillance registry of patients exposed to photodynamic therapy with porfimer sodium: The CALIPSO Registry.
- Comparative Mutational Profiling as the Standard of Care in Assessing Lung Lesions.
- Immunobiology of photodynamic therapy in Lung Cancer Patients.
- Mechanisms of Bronchiolitis Obliterans in Pediatric and Adult Lung Transplants.

- Multicenter, prospective, open-label, single-arm phase IIIb/IV clinical study on the safety of photodynamic therapy with porfimer sodium for injection for the ablation of high-grade dysplasia in Barrett's esophagus: OEDISSE.
- Neuropathy after Lung Transplantation.
- PDT Outcomes Registry.
- Pilot Study Assessing Robotic Video Assisted Thoracic Surgery (RATS) Versus Standard Thoracotomy for Malignant Lesions.
- Role of macrophages in cardiac transplantation.

## Accomplishments in Research

- Klassen Research Day, June 2011, Klassen lecturers Irving Kron, M.D. and Ann Marie Schmidt, M.D. Dr. Kron, Chairman of the Department of Surgery and S. Hurt Watts Professor of Surgery at University of Virginia, President of the American Association for Thoracic Surgery presented "The Future of Cardiac Surgery". Dr. Schmidt, Director of the Diabetes Research Program at New York University Langone Medical Center, first Iven Young Professor of Endocrinology at NYU, has served on advisory committees and chaired conferences for the National Institutes of Health, the American Heart Association, the Juvenile Diabetes Association, the American Diabetes Association and she received the David Rumbough Research Award from the JDRF in 2010. Dr. Schmidt presented "RAGE, Signal Transduction and the Complications of Diabetes".

## Active Research Grants

**Janssen PM**, Carnes CA, Davis JP, Elton, Terry S, Gyorke S, Periasamy M, Rafael-Fortney JA, Sun B, Ziolo MT. Inst (ARRA) Electrical and mechanical behavior of live human myocardium in health and disease. American Heart Association - Great Rivers Affiliate, September 30, 2009 – August 31, 2012, \$25,000

**Kassis E**. Correlation of Stage-Specific MicroRNA Profile with Pathologic Stage, Recurrence and Survival in Patients with Resected Non-Small Cell Lung Cancer". The Ohio State University Research Investment Fund, 2009 – Present, \$200,000

**Moffatt-Bruce S**. The Role of Macrophages in Acute Cellular Rejection in Cardiac Transplant, K12 Scholars Award 2009–2011, \$196,000/year

**Moffatt-Bruce S.** The Role of T Cells and Macrophages in Acute Cardiac Rejection. American Heart Association, July 1, 2010 – June 30, 2012 \$60,500

**Moffatt-Bruce S.** The Role of Macrophages in Acute Cellular Rejection.” NIH/TSFRE, 2010 – 2015, \$150,000

**Moffatt-Bruce S.** The Role of T Regulatory Cells and Regulatory Cells in Acute Cellular Rejection.” American Heart Association, July 2010 – July 2012, \$170,000

Kissel JT, **Ross P.** Thymectomy in non-thymomatous MG patients on prednisone. University of Alabama - Birmingham, September 30, 2010 – July 31, 2012

## Clinical Programs

- Adult thoracic surgery
- Electromagnetic bronchoscopy
- Endobronchial ultrasound
- Lung volume reduction surgery
- Photodynamic therapy
- Robotic surgery
- Thoracic oncology multidisciplinary clinic
- Tracheal reconstruction

## Clinical Statistics

OR Procedures	1,167
Outpatient Visits	1,745
Admissions	1,251
Patient Days	5,131
Average Length of Stay (Days)	5.69

## Educational Programs

- Two-year cardiothoracic surgery fellowship accredited by the Accreditation Council for Graduate Medical Education.
- Comprehensive rotation in thoracic surgery for first- and third-year residents in general surgery.

## Accomplishments in Education

- Completion of the cardiothoracic surgery fellowship by Dr. Sergio Carrillo and Dr. Jason Rousseau in June 2011.

## Community Outreach Programs

Thoracic Oncology Team for Pelotonia: a grassroots bike tour with one goal: to end cancer. 100% of all funds raised by Pelotonia directly support cancer research conducted at the Comprehensive Cancer Center and James Cancer Hospital/Solove Research Institute (OSUCCC-James) at The Ohio State University.

## Publications

Bertino E, Villalona-Calero MA, **Ross P**, Grever M, Otterson GA. Preoperative Bevacizumab in combination with Paclitaxel and Carboplatin in surgically resectable non small cell lung cancer. *Ann Thorac Surg* 2011 Feb;91(2):640

Blackmon SH, **Kassis ES**, Ge Y, Goldfarb R, Reardon M. Left atrial myxoma embolus to the renal artery: Should a nephrectomy be advised? *The Annals of Thoracic Surgery* 2010 Jul;90(1):289-92

Chandra D, Lipson DA, Hoffman EA, Hansen-Flaschen J, Sciurba FC, Decamp MM, Reilly JJ, Washko GR; National Emphysema Treatment Trial Research Group. Perfusion scintigraphy and patient selection for lung volume reduction surgery. *Am J Respir Crit Care Med* 2010 Oct 1;182(7):937-46. Epub 2010 June

Deiuliis J, Shah Z, Shah N, Needleman B, Mikami D, Narula V, Perry K, Hazey J, Kampfrath T, Kollengode M, Sun Q, Satoskar AR, Lumeng C, **Moffatt-Bruce SD**, Rajagopalan S. Visceral adipose inflammation in obesity is associated with critical alterations in regulatory cell numbers. *PLoS One* 2011 Jan 26;6(1):e16376



Gonsenhausner I, Abaza R, Mekhjian H, **Moffatt-Bruce SD**. Robotic Surgery Quality Assessment Program: Engaging medical students. *Journal of Healthcare Improvement* (Formally Accepted) 2011 March

Gonsenhausner I, Beal E, Shihadeh F, Mekhjian HS, **Moffatt-Bruce SD**. Development and assessment of quality improvement education for medical students at The Ohio State University Medical Center. *Journal of Healthcare Improvement* (Accepted) 2011 June

Gonsenhausner I, **Moffatt-Bruce SD**. Evaluating robotics procedures using balanced scorecards. *Journal of the American College of Surgeons* 2010 September;S3(211):S108-S109

**Haubert L, Way D, DePhilip R, Tam M, Bishop J, Jones K, Moffatt-Bruce SD**. Surgeons as medical school educators: An untapped resource. *Anatomical Sciences Education* (Accepted) 2011 March

Kampfrath T, Maisseyu A, Ying Z, Shah Z, Deiuliis JA, Xu X, Kherada N, Brook RD, Reddy KM, Padture NP, Parthasarathy S, Chen LC, **Moffatt-Bruce SD**, Sun Q, Morawietz H, Rajagopalan S. Chronic fine particulate matter exposure induces systemic vascular dysfunction via NADPH oxidase and TLR4 pathways. *Circ Res* 2011 Mar 18;108(6):716-26. Epub 2011 Jan 27

Lo S, **Moffatt-Bruce SD**, Mayr N. The role of local therapy in the management of oligometastasis. *Nature Reviews Clinical Oncology* (Accepted) 2011 April

Mallet R, Conroy M, Saslaw L, **Moffatt-Bruce SD**. Preventing wrong site procedure and patient events using a common cause analysis. *American Journal of Medical Quality* (Accepted) 2011 May

**Moffatt-Bruce SD, Ross P**, Leon ME, He G, Finkelstein SD, Vaida AM, Iwenofu OH, Frankel WL, Hitchcock CL. Comparative mutational profiling in the assessment of lung lesions: Should it be the standard of care? *The Annals of Thoracic Surgery* 2010 Aug;90(2):388-396

Shah Z, Pineda C, Kampfrath T, Maisseyu A, Ying Z, Racoma I, Deiuliis J, Xu X, Sun Q, **Moffatt-Bruce SD**, Villamena F, Rajagopalan S. Acute DPP-4 inhibition modulates vascular tone through GLP-1 independent pathways. *Vascul Pharmacol* 2011 Mar 9 [Epub ahead of print]

Wood KL, Nunley DR, **Moffatt-Bruce SD**, Pope-Harman A, Huang Q, Shamo EN, Phillips GS, Baran C, Batra S, Marsh CB, Doseff AI. The role of heat shock protein 27 in bronchiolitis obliterans syndrome after lung transplantation. *J Heart Lung Transplant* 2010 Jul;29(7):786-91. Epub 2010 Apr 24

Zikri N, Schumer E, Tam M, Hadley G, **Moffatt-Bruce SD**. Induction of CD4+CD25+ T regulatory cells with CD103 depletion. *Journal of Surgical Research* 2010 Sept;1(163):162

## Abstracts

Carrillo S, **Ross P, Kassis E**. Fusion PET/CT underestimates the presence of hilar nodal metastases in patients with resected non-small cell lung cancer (NSCLC). Society of Thoracic Surgeons, San Diego, Ca., January 30, 2011

Gonsenhauser I, **Moffatt-Bruce SD**. Evaluating robotic procedures using balanced scorecards. American College of Surgeons Annual Congress, Washington, DC, October 2010

**Ross P**. Endoluminal management of bronchogenic carcinoma. American College of Surgeons Annual Congress, Washington, DC, October 6, 2010

**Ross P**, Hendershot M, Maxey K, Wilson J. Photodynamic therapy for lung and esophageal cancer: a review of outcomes at a single comprehensive cancer center. 13th IPA World Congress, Innsbruck, Austria, May 10-14, 2011

## Book Chapters

**Bansal S, Kassis ES**. Gastroesophageal Reflux Disease & Esophageal Motility Disorders. *The Johns Hopkins Manual of Cardiothoracic Surgery*. New York, NY, McGraw Hill, 2010.

**Moffatt-Bruce SD**. Bronchiolitis Obliterans Syndrome. *Cardiothoracic Surgery Review*. Baltimore, Md., Lippincott, Williams and Wilkins Ltd, 2010.

**Moffatt-Bruce SD**. Posterolateral Thoracotomy Incision. *Zollinger-Ellison Atlas of Surgery*. 9th ed. New York, NY, McGraw-Hill. September 21, 2010, 420-423.

**Moffatt-Bruce SD**, Mitchell RS. Endovascular Therapy for the Treatment of Thoracic Aortic Disease. *Cardiac Surgery in the Adult*, 4th ed. McGraw-Hill. Accepted 2011.

## International Presentations

**Moffatt-Bruce SD**. Women in Transplantation: Career challenges for women as clinician-scientists in transplantation. Women in Transplantation Symposium, International Congress of the Transplantation Society, Vancouver, British Columbia, Canada, August 2010

**Moffatt-Bruce SD**. The role of innate immunity in transplantation. British Transplant Society Annual Congress, Bournemouth, England, March 9-11, 2011

**Ross P**, Hendershot M, Maxey K, Wilson J. Photodynamic therapy for lung and esophageal cancer: a review of outcomes at a single comprehensive cancer center. 13th IPA World Congress, Innsbruck, Austria, May 10-14, 2011

## National Presentations

**Carrillo S, Ross P, Kassis E.** Fusion PET/CT underestimate the presence of hilar nodal metastases in patients with resected non-small cell lung cancer (NSCLC). The Society of Thoracic Surgery, San Diego, Ca., January 30, 2011

Gonsenhauser I, **Moffatt-Bruce SD.** Evaluating robotic procedures using balanced scorecards. ACS Annual Congress, Washington, DC, October 2010

Haubert L, **Moffatt-Bruce SD.** Surgeons as educators: An untapped resource. American Association of Academic Anatomists, Honolulu, Hi., July 2010

**Moffatt-Bruce SD.** Chronic Allograft Rejection: The role of macrophage associated transcripts: CCL17, CCL22 and IL-6. The American Society of Transplantation, Annual Scientific Exchange, Orlando, FL, October 2010

**Moffatt-Bruce SD.** Preventing wrong site, procedure and person events using common cause analysis. Sixteenth International Scientific Symposium on Improving Quality and Value in Health Care, Orlando, FL., December 6, 2010

**Moffatt-Bruce SD.** Achieving accountability: Engaging the team. University of Louisville, Louisville, Ky., February 21, 2011

**Moffatt-Bruce SD.** Engaging the team to improve patient safety using crew resource management. Teaching Quality Improvement and Patient Safety to Health Professionals Symposium, Mayo Clinic, Rochester, Mn., May 23-24, 2011

**Moffatt-Bruce SD.** Preventing wrong site, procedure and person events using common cause analysis. NPSF Annual Patient Safety Congress, Washington, DC, May 25-27, 2011

**Moffatt-Bruce SD.** Creation of and electronic library of potential retained foreign bodies to reduce errors. AAMC Integrating Quality: Linking Clinical and Educational Excellence Symposium, Chicago, Il., June 9-10, 2011

**Moffatt-Bruce SD.** The surgical team safety checklist: Opportunities for improvement. AAMC Integrating Quality: Linking Clinical and Educational Excellence Symposium, Chicago, Il., June 9-10, 2011

**Ross P.** Leading a thoracic oncology program. Electromagnetic Navigation Bronchoscopy Summit, Phoenix, Az., February 25, 2011

**Ross P.** Photodynamic therapy: current practice. Electromagnetic Navigation Bronchoscopy Summit, Phoenix, Az., February 26, 2011

## Miscellaneous Presentations

Bobek D, Meyerson J, Wang J-J, Jackson H, Hadley G, **Moffatt-Bruce SD.** Chronic cardiac allograft rejection: the potential role of macrophages and the activation-associated transcripts, CCL17, CCL22 and IL-6. 10th Annual Dorothy M. Davis Heart & Lung Research Institute Research Day, Columbus, Oh., October 12, 2010

**Daniel V.** Superior sulcus tumors. Upper Valley Medical Center, Troy, Oh., June 13, 2011

**Daniel V.** Surgical management of tracheal disorders. Surgery Grand Rounds, The Ohio State University, Columbus, Oh., June 16, 2011

**Kassis E.** Staging and management esophageal carcinoma. Licking Memorial Hospital, Newark, Oh., 2010

**Kassis E.** Minimally invasive esophageal surgery: Where do we go from here? Gastrointestinal Cancers 2010: A Multidisciplinary Approach to Prevention, Diagnosis and Treatment, Columbus, Ohio, October 8, 2010

**Kassis E.** Thoracic surgery. MSIII Podcast on Thoracic Surgery, The Ohio State University, Columbus, Oh., October 22, 2010

**Kassis E.** Management of superior sulcus tumors. General Surgery Grand Rounds, The Ohio State University, Columbus, Oh., February 24, 2011

**Moffatt-Bruce SD.** Zero Defects. Quality and Patient Safety Series, The Ohio State University College of Medicine, Columbus, Oh., July 2010

**Moffatt-Bruce SD.** Assessment of the high risk patient. Quality and Patient Safety Series, The Ohio State University College of Medicine, Columbus, Oh., September, 2010

**Moffatt-Bruce SD.** Transplant related heart failure: The potential role of macrophages. From Bench to Bedside: Comprehensive Transplant Center Lecture Series, The Ohio State University College of Medicine, Columbus, Oh., October, 2010

**Moffatt-Bruce SD.** Human factors. Quality and Patient Safety Series, The Ohio State University College of Medicine, Columbus, Oh., October, 2010

**Moffatt-Bruce SD.** Using molecular analysis for lung cancer treatment. Cardiothoracic Surgery Update, Holzer Medical Center, Gallipolis, Oh., January, 2011

**Ross P.** Endoluminal management of lung cancer: Photodynamic therapy. 2010 Lung Cancer Conference, The Ohio State University Medical Center, Columbus, Oh., November 3, 2010

**Ross P.** Minimally invasive thoracic and UGI procedures. Good Samaritan Hospital, Zanesville, Oh., June 9, 2011

## Distinguished Visiting Professors

### **James Luketich, MD**

Chair of the Department of Cardiothoracic Surgery, Professor of Surgery, University of Pittsburgh, Pittsburgh, Pa., “Evolution of Minimally Invasive Esophagectomy”, March 4, 2011

### **Irving Kron, MD**

President of the American Association for Thoracic Surgery, Chairman of the Department of Surgery and the S. Hurt Watts Professor of Surgery, University of Virginia, Charlottesville, Va., “The Present and Future of Cardiothoracic Surgery”, Klassen Research Day, June 16, 2011

### **Ann Marie Schmidt, MD**

Director of the Diabetes Research Program, first Iven Young Professor of Endocrinology, New York University Langone Medical Center, New York, NY, “RAGE, Signal Transduction and the Complications of Diabetes”, Klassen Research Day, June 16, 2011.

## Division of Transplantation



# Transplantation



**Mitchell L. Henry, MD**  
Chief, Division of Transplantation

**T**he Division of Transplantation continues to combine a busy clinical transplant program with a diverse and productive research effort. Within the Comprehensive Transplant Center (CTC), the division has embarked on a number of collaborative, interdisciplinary endeavors to enhance both the clinical activities and the basic research efforts in transplantation at The Ohio State University Medical Center. The CTC's team of specialists are pursuing areas of common interest in transplantation, including immunopharmacology, immune assessment and monitoring, immune engineering, information systems, biostatistics, clinical trials, public policy and ethical considerations, and communications and public relations.

Gregg Hadley, PhD, professor of surgery, deputy director of research in the Comprehensive Transplant Center, continued his research examining transplant rejection and graft-versus-host pathology and the development of strategies for therapeutic intervention in these processes. In other basic science research, Dr. Ginny Bumgardner continued her research in hepatocyte and islet transplant murine models, and was recently awarded a National Institute of Allergy and Infectious Diseases/National Institutes of Health (NIAID/NIH) grant to investigate novel mechanisms regulating post-transplant humoral alloimmunity. Dr. Ronald Pelletier continued his work on antibody modulated allograft rejection and immune tolerance.

Clinically, the volume of kidney and pancreas transplantation remains high, buoyed by a strong living-donor program. Under the guidance of Dr. Amer Rajab, the first pancreatic islet transplant in Central Ohio was performed at The Ohio State University Medical Center. Ohio State is one of about a dozen medical centers in the country with a team in place to perform the transplants that improve the quality of life for people with diabetes. The successful procedure represents the culmination of more



than seven years of research. Dr. Rajab has also received funding to test the theory of encapsulating islets to prevent rejection post-transplantation. The division continues to conduct clinical trials examining new and innovative immunosuppressive regimens in the post-transplant patient.

Dr. Mitchell L. Henry, chief of the Division of Transplantation, deputy director of the Comprehensive Transplant Center and professor of surgery, was elected as the 38th president of the American Society of Transplant Surgeons (ASTS). The ASTS is a non-profit organization, committed to fostering and advancing the practice and science of transplantation for the benefit of patients and society. Prior to becoming President, Dr. Henry served four years as a councilor-at-large and chaired several committees. He also serves as the medical director of Lifeline of Ohio Organ Procurement Agency.

Members of the division faculty continue to participate in national organizations, including the American Society of Transplant Surgeons (ASTS), the United Network for Organ Sharing (UNOS), and the Vascular Access Society of the Americas (VASA). Dr. Mitchell Henry serves as president of VASA. Dr. Ginny Bumgardner serves on the board of directors of the American Association for the Study of Liver Diseases (AASLD). Dr. Kenneth Andreoni serves as chair of the subcommittee on National Kidney Paired Donation and co-chair of the subcommittee on Liver-Kidney Allocation, both at UNOS. Jeff Sneddon, senior systems consultant, continues to revise and refine TransChart, a unique, integrated patient information system. The TransChart system has been adopted by several other U.S. transplant centers.

In June 2011, Dr. Anas Alzuhaili, previously a resident at Damascus University Hospitals, in Damascus, Syria, completed the fellowship in transplantation, and began a trauma fellowship at the Hurley Medical Center, in Flint, Michigan. Dr. Rachel Forbes successfully completed the first year of the fellowship in transplantation and has begun her second year. Dr. Sunil Kumar has embarked upon his first year of the transplant fellowship.

## Faculty

### **Mitchell L. Henry, MD**

Professor of Surgery; Chief, Division of Transplantation; Deputy Director of Surgical Services, Comprehensive Transplant Center

**BS:** University of Nebraska, Lincoln, Ne., 1976

**MD:** University of Nebraska, Omaha, Ne., 1979

**Specialty Training:** The Ohio State University, Columbus, Oh.

**Appointment:** 1985

**Specialty Interests:** Transplantation, immunosuppression

**Research Interests:** Pancreatic transplantation, xenotransplantation



*Henry*

### **Kenneth A. Andreoni, MD**

Associate Professor of Surgery; Director, Liver Transplantation; Deputy Director of Clinical Research, Comprehensive Transplant Center

**BS:** Georgetown University, Washington, DC, 1984

**MD:** Yale University, New Haven, Ct., 1988

**Specialty Training:** Johns Hopkins University Hospital, Baltimore, Md.; The Ohio State University, Columbus, Oh.

**Appointment:** 2008

**Specialty Interests:** Liver transplantation

**Research Interests:** New anti-rejection drugs, antibody-mediated injury to liver, kidney grafts



*Andreoni*

### **Ginny L. Bumgardner, MD, PhD**

Professor of Surgery; Associate Dean for Research Education, College of Medicine; Director, Master of Medical Science Program

**BS:** College of William and Mary, Williamsburg, Va., 1979

**MD:** University of Virginia, Charlottesville, Va., 1983

**PhD:** University of Minnesota, Minneapolis, Mn., 1994

**Specialty Training:** University of Minnesota, Minneapolis, Mn.; University of California at San Francisco, Ca.

**Appointment:** 1993

**Specialty Interests:** Transplantation, immunosuppression, post-transplant pregnancy, liver disease and transplantation

**Research Interests:** Transplantation immunology, liver immunobiology, cellular transplantation



*Bumgardner*

**Elizabeth Ann Davies, MD**

Clinical Assistant Professor of Surgery

**BS:** University of Akron, Akron, Oh., 1979

**MD:** Northeastern Ohio Universities, Rootstown, Oh., 1983

**Specialty Training:** The Ohio State University, Columbus, Oh.

**Appointment:** 1993

**Specialty Interests:** Transplantation, immunosuppression

**Research Interests:** Transplantation, organ procurement



*Davies*

**Elmahdi A. Elkhammas, MD**

Professor of Clinical Surgery

**MD:** Gar-Younis University, Benghazi, Libya, 1977

**Specialty Training:** The Ohio State University, Columbus, Oh.

**Appointment:** 1991

**Specialty Interests:** Transplantation, immunosuppression

**Research Interests:** Liver transplantation, urologic complications



*Elkhammas*

**Gregg A. Hadley, PhD**

Professor of Surgery; Deputy Director of Research, Comprehensive Transplant Center

**BS:** Purdue University, West Lafayette, In., 1975

**MS:** University of Iowa, Iowa City, Ia, 1979

**PhD:** University of Minnesota, Minneapolis, Mn., 1986

**Specialty Training:** Washington University School of Medicine, St. Louis, Mo.

**Appointment:** 2006

**Specialty Interests:** Transplant immunology

**Research Interests:** Mechanisms of organ transplant rejection and graft-versus-host disease



*Hadley*

**Ronald P. Pelletier, MD**

Associate Professor of Surgery; Director, Kidney Transplantation

**BS:** Trinity College, Hartford, Ct., 1979

**MD:** University of Cincinnati, Cincinnati, Oh., 1987

**Specialty Training:** The Ohio State University, Columbus, Oh.

**Appointment:** 1996

**Specialty Interests:** Pre- and post-transplant immune status monitoring

**Research Interests:** Pathophysiology of chronic rejection



*Pelletier*

**Amer Rajab, MD, PhD**

Associate Professor of Surgery; Director, Pancreas and Islet Transplantation

**MD:** Damascus University, Damascus, Syria, 1983

**PhD:** Lund University, Lund, Sweden, 1991

**Specialty Training:** University of Texas Southwestern Medical Center, Dallas, Tx.

**Appointment:** 2001

**Specialty Interests:** Organ transplantation

**Research Interests:** Islet transplantation



*Rajab*

## Emeritus Faculty

**Ronald M. Ferguson, MD, PhD**

Professor Emeritus of Surgery

**BS:** Augsburg College, Minneapolis, Mn., 1967

**MD:** Washington University, St. Louis, Mo., 1971

**PhD:** University of Minnesota, Minneapolis, Mn., 1982

## Fellows

**Anas Alzuhaili, MD**

Transplantation Fellow/Clinical Instructor of Surgery

**MD:** Damascus University, Damascus, Syria, 2001

**Rachel C. Forbes, MD**

Transplantation Fellow/Clinical Instructor of Surgery

**MD:** Vanderbilt University, Nashville Tn., 2005

## Rotating Resident Staff

**Fernando Aguila, MD**

PGY-3, Mount Carmel Health System

**Michael dePerro, MD**

PGY-3, Riverside Methodist Hospital

**Jamison Foster, DO**

PGY-4, Doctors Hospital

**Jason Johnson, DO**

PGY-4, Doctors Hospital

**Meghan Nadeau, MD**

PGY-3, Mount Carmel Health System

**Jonathan Pulido, MD**

PGY-3, Mount Carmel Health System

**Ammon Rasmussen, MD**

PGY-3, Mount Carmel Health System

**Rohit Soans, MD**

PGY-3, Riverside Methodist Hospital

**Michelle Wood, DO**

PGY-4, Doctors Hospital

## Mission

The Division of Transplantation is dedicated to building upon a solid foundation of basic, translational, and clinical research in order to define and develop the next generation of high-quality, comprehensive, cost-effective transplant programs.

## Research Programs

- Transplant rejection
- Allograft acceptance and transplant tolerance
- Novel immunologic strategies for islet cell transplantation
- Cellular transplantation
- New immunosuppressive compounds

## Accomplishments in Research

- **Gregg A. Hadley, PhD** serves as Deputy Director of Research in the Comprehensive Transplant Center. He leads a research program focused on defining mechanisms of chronic tissue injury following transplantation, and the development of novel therapeutic strategies for intervention in these processes.
- **Dr. Ronald Pelletier** continues the division's investigations into the immunobiology of graft acceptance and the role of alloantibodies in allograft pathobiology. Our recent studies addressing transplantation tolerance suggest that allograft acceptance may evolve through a series of mechanisms involving TGF $\beta$  and foxP3 regulatory cells. These mechanisms are associated with donor-reactive alloantibodies and pathology within the grafts, and do not lead to true transplantation tolerance, despite the ability to accept donor matched skin allografts. Our ongoing studies of the role of alloantibodies in transplantation reveal that alloantibodies are not necessarily directed at MHC molecules, but are also directed at tissue associated and tissue-specific molecules. Using new experimental assays for alloantibody detection, our studies have further revealed that some, but not all, of these antibodies are complement-fixing. Investigational studies focusing on humoral allograft rejection in an animal model are designed to carefully characterize the acute inflammatory events leading to Ab-mediated graft damage. We hope to define stages in the process that offer opportunities for therapeutic intervention to ameliorate graft damage.

- **Translational Research in Immunologic Recognition and Post-transplant Outcomes.** Dr. Ronald Pelletier continues his translational research (basic, tissue typing, and clinical) investigating the relationship between cellular and humoral donor-specific immunologic recognition and post-transplant outcomes. Efforts are now under way to foster living donor/recipient pair exchanges to enable increasing numbers of patients to obtain a lifesaving kidney transplant. Additionally, methods for removing circulating alloantibodies in sensitized recipients to permit safe organ transplantation continue to be investigated.
- **Transplantation Immunobiology.** Dr. Ginny Bumgardner continues her investigations in transplant immunobiology, using experimental models of pancreatic islet and hepatocyte (liver cell) transplantation. Dr. Bumgardner's lab-based research focuses on basic mechanisms of alloimmune mediated hepatocyte injury. She introduced the functional hepatocyte transplantation model using transgenic hepatocytes to study the in vivo immunobiology of allogeneic hepatocellular transplantation in 1998. Published work demonstrates that allogeneic hepatocytes are vulnerable to cell-mediated as well as alloantibody mediated parenchymal cell damage. Her studies using this model in comparison to genetically matched islet transplant and heart transplant have demonstrated the importance of tissue (parenchymal cell type) in determining the phenotype and effector mechanisms comprising alloimmune responses after transplantation. Work from her lab has demonstrated that allogeneic liver parenchymal cells stimulate the maturation of CD4-independent and CD4-dependent allospecific CD8+ cytolytic effectors (allo-CTLs). This pathway is important, because it can cause transplant tissue damage, either early or late after transplant, and interferes with the induction of transplantation tolerance. These CTL subsets are distinct in magnitude of in vivo cytotoxic effector function, CD8+ T cell recall responses in vivo, molecular effector mechanisms which mediate cytotoxicity. Furthermore, these two pathways are differentially susceptible to conventional and experimental immunosuppressive agents. Dr. Bumgardner's laboratory was the first to report the efficacy of a novel immunosuppressive strategy that successfully suppresses this immunoresistant (CD4-independent) CD8+ T cell mediated immune pathway and promotes long-term allograft survival. Very little is known regarding how CD8+ T cells cause immune damage of allografts and in vivo effector functions of alloreactive CD8+ T cells is a specific focus for investigation. Dr. Bumgardner's lab is also investigating CD4-dependent humoral immune pathways of allograft damage. Her lab is the first to show that alloantibodies also mediate immune damage of transplanted hepatocytes by a macrophage-dependent, complement-independent, NK-independent cytotoxic effector mechanism. Studies are ongoing to investigate novel mechanisms governing the regulation of posttransplant alloantibody production in an animal model and to investigate translational aspects of these studies in humans. These and other projects have been funded by external sponsors, such as the American Diabetes Association, the Roche Organ Transplant Research Foundation, the American Society of Transplant Surgeons, the American Society of Transplantation and the National Institutes of Health.



## Active Research Grants

**Elkhammas EA, Bumgardner GL, Ferguson RM, Henry ML, Pelletier RP, Rajab A.** Conversion from calcineurin inhibitor treatment to sirolimus treatment vs. continued calcineurin inhibitor treatment in liver allograft recipients undergoing maintenance therapy. Wyeth-Ayerst Research, September 19, 2002 – January 31, 2012, \$60,118.

**Elkhammas EA, Ferguson RM, Pelletier RP, Henry ML, Bumgardner GL, Rajab A.** Conversion from calcineurin inhibitor treatment to sirolimus treatment versus continued calcineurin inhibitor treatment in liver allograft recipients undergoing maintenance therapy. Wyeth-Ayerst Research, September 19, 2002 – January 31, 2012, \$298,260.

**Hadley GA.** Kidney-restricted CTL and allograft rejection. National Institute of Allergy and Infectious Diseases, April 1, 2007 – March 31, 2011, \$321,486.

**Hadley GA.** Role of CD103 in late loss of pancreatic islet allografts. Roche Organ Transplantation Research Foundation. March 2007 – February 2011, \$56,477.

**Hadley GA.** Role of CD103 in late loss of pancreatic islet allografts. Roche Organ Transplantation Research Foundation. March 2007 – February 2011, \$33,265.

**Moffatt-Bruce SD, Hadley GA, Sen CK.** The role of T cells and macrophages in cardiac transplant rejection. National Heart, Lung, and Blood Inst. August 2010 – June 2015, \$5,994.

**Nori US.** A randomized, open-label, multicenter, parallel-group study of Belatacept-based Corticosteroid-free regimens in renal transplant. Bristol-Myers Squibb Co. June 2007 – December 2013, \$59,124.

**Nori US.** A randomized, open-label, multicenter, parallel-group study of Belatacept-based Corticosteroid-free regimens in renal transplant. Bristol-Myers Squibb Co. June 2007 – December 2013, \$22,108.

**Nori US.** A randomized, open-label, multicenter, parallel-group study of Belatacept-based Corticosteroid-free regimens in renal transplant. Bristol-Myers Squibb Co. June 2007 – December 2013, \$10,519.

**Osei K, Essig ED, Rajab A, Wang J.** Exenatide in islet cell transplantation in non-human primate model. Eli Lilly & Co. June 2009 – June 2011, \$1,059.

**Osei K, Essig ED, Rajab A, Wang J.** Exenatide in islet cell transplantation in non-human primate model. Eli Lilly & Co. June 2009 – June 2011, \$1,059.

**Pelletier RP.** Acute humoral rejection of renal allografts. Cleveland Clinic Foundation, July 1, 2007 – June 30, 2012, \$183,938.

**Pelletier RP, Henry ML.** Clinical outcomes associated with rapamycin use among renal transplant recipients. Novartis Pharmaceuticals Corp. November 2009 – November 2011, \$120,000.

**Pelletier RP, Henry ML.** Clinical outcomes associated with rapamycin use among renal transplant recipients. Novartis Pharmaceuticals Corp. November 2009 – November 2011, \$30,000.

**Pham TA, Bumgardner, GL.** Investigating the role of CD8+ T cell and B cell interactions in the regulation of post transplant alloantibody production. Am Soc of Transplant Surgeons. July 2009 – June 2011, \$40,000.

**Rajab A, Ferguson RM, Henry ML, Pelletier RP.** Rapid four-day steroid withdrawal with thymoglobulin induction and maintenance immunosuppression with sirolimus and mycophenolate in primary cadaveric renal transplantation. Wyeth Pharmaceuticals, Inc., December 1, 2005 – December 1, 2009, \$164,296.

**Rajab A.** Collaborative islet transplant registry. The EMMES Corp. March 2009 – March 2011, \$150.

**Rajab A, Ferguson RM, Henry ML, Pelletier RP.** Rapid four day steroid withdrawal with thymoglobulin induction and maintenance immunosuppression with sirolimus and mycophenolate in primary cadaveric renal transplantation. December 2005 – January 2013, \$32,859.

**Zimmerer JM, Bumgardner GL, Hadley GA.** CD8+ T cell regulation of alloantibody production following transplantation. National Institute of Diabetes and Digestive and Kidney Diseases, May 1, 2009 – April 30, 2011, \$48,826.

## Clinical Programs

- Pre-transplant
- Post-transplant and transplant wellness. The program currently sees more than 2,000 patients
- Living donor kidney
- Kidney transplant
- Liver transplant
- Pancreas transplant
- Vascular access
- Deceased donor

## Accomplishments in Clinical Care

- This year, a milestone was achieved with the first allo-islet transplant being performed at Ohio State. Allo-islet transplantation allows diabetic patients to receive the islets from the pancreas of a deceased donor, as the patient's own islets have ceased to function.

In this first case, the patient was a medical center employee, and colleague of the transplant team. Dr. Rajab and his laboratory team used a donor pancreas and in a nine hour process, retrieved 400,000 to 600,000 islets. The islets were transfused through a vein into the patients' liver, where research has shown they respond best.

Today the patient is using about 80% less insulin and may be insulin-free in the future. About 65% of patients who receive a transplant no longer need insulin a year after the procedure.

The allo-islet transplant is highly specialized, and Ohio State is one of only a few prestigious centers certified to offer this type of transplant.

- **Pediatric transplant program.** As Director of Pediatric Transplantation, Dr. Rajab continues to enhance the transplant program at Nationwide Children's Hospital. Seven kidney transplants were performed during the past year. In addition, utilizing the expertise gained over the many years of the Ohio State program, Dr. Rajab has implemented successful immunosuppressive regimens in his pediatric patients.
- **Kidney Transplant Program.** This year, a dedicated effort by the pre-transplant coordinators, the transplant surgeons, and the nephrologists resulted in 103 living donor kidney transplants. In addition, 93 deceased donor kidney transplants were performed.
- **Sequential Pancreas Transplant Program.** Continued efforts to focus on a sequential pancreas transplant program resulted in five of these transplants being performed this year, benefiting the large population of patients who, suffering from end-stage renal disease secondary to diabetes, have already undergone a successful kidney transplant. In addition, 22 combined kidney-pancreas transplants were performed this year, allowing the recipients to be cured of both diseases by a single transplant procedure.
- **Liver Transplant Program.** During the year, eighteen liver transplants were performed.

## Clinical Statistics

OR Procedures	1,711
Outpatient Visits	3,243
Admissions	797
Patient Days	1,953
Average Length of Stay (Days)	6.93

## Educational Programs

- Two-year fellowship in solid organ transplantation. The program is accredited by the American Society of Transplant Surgeons.
- Rotations for general surgery residents during their intern and PGY-3 years.
- Rotation for surgery residents from the Mount Carmel Hospital System, Riverside Methodist Hospital, and Doctors Hospital. The rotation provides the clinical transplant experience required by the American Board of Surgery.
- Comprehensive Transplant Center Lecture Series. This bi-weekly lecture features broad-based clinical and basic science topics, presented by clinicians and researchers from Ohio State and other institutions.
- Biopsy Conference. The weekly conference reviews renal transplant biopsies and liver transplant biopsies, in conjunction with the pathologists and nephrology physicians.
- Divisional Morbidity and Mortality Conference.
- Observership Program. The one-month international visiting scholar appointment allows international medical students, graduates, and faculty who are not part of a formal training program at The Ohio State University Medical Center to observe faculty members, residents, or interns at Ohio State for a predetermined period of time. The goal is to introduce international visiting scholars to the fields of transplant surgery, patient care, research, and teaching.

## Accomplishments in Education

- The 2011 American Transplant Congress (ATC), was held during May 1-5, 2011, in Philadelphia, Pennsylvania. This joint meeting between the American Society of Transplant Surgeons (ASTS) and the American Society of Transplantation (AST) is the foremost educational event in the field of basic and clinical transplantation. At this year's meeting, as well as chairing plenary sessions and presenting orally, the combined efforts of the surgeons and Dr. Hadley resulted in twelve abstracts being accepted for the event.
- At this meeting, Dr. Henry progressed from President-elect to President of the ASTS. The Society, with more than 1,600 members, is dedicated to fostering and advancing the practice and science of transplantation for the benefit of patients and the community. Members are primarily board-certified surgeons with advanced training in transplantation and a record of publication in peer-reviewed journals and books.

- Dr. Henry, who is President of the Vascular Access Society of the Americas (VASA), served as a faculty member at the Vascular Access for Hemodialysis XIII Symposium, held May 20-21, 2011 in St Louis, Missouri. The program promoted excellence in the care of the patients who require hemodialysis – including placement of optimal access, maintenance and prolongation of access patency.
- Dr. Henry, Dr. Andreoni and Dr. Bumgardner all created learning modules for the Organ Procurement Unit in the National Transplant Surgery Fellowship curriculum, developed by the American Society of Transplant Surgeons. The Curriculum defines the key areas of knowledge necessary for mastery of the field of transplantation surgery and when complete, this ASTS Academic Universe will contain over 200 learning modules. The Curriculum is available to all residents, fellows and transplant professionals who are members of this prestigious society.
- Dr. Rachel Forbes joined the transplant team as the junior fellow in the ASTS-approved fellowship training program.
- Dr. Anas Alzuhaili completed the two-year fellowship in abdominal organ transplantation, and accepted a trauma fellowship at Hurley Medical Center in Flint, Michigan.
- The division continues to distribute a CD-ROM for resident education that is continually updated with cutting-edge educational materials on transplantation.
- Progress continues on the video library for resident education. The division's attending faculty members believe that a complete video library in solid organ transplantation will be a valuable teaching tool for those interested in this specialized field.
- Dr. Ginny Bumgardner is a member of the admissions committees for the Medical Scientist Program (MSP), the M.D./Ph.D. dual degree program. She also serves on the MSP Steering Committee, which addresses MSP policies and administrative issues. Dr. Bumgardner is a faculty member for the Integrated Biomedical Sciences Graduate Program.
- Dr. Bumgardner is the Associate Dean for Research Education & Graduate Studies in the College of Medicine. She participates as a member of the OSU Clinical and Translational Science (CCTS) Community of Research Education.
- Dr. Bumgardner is the Director of the COM's Masters of Medical Science Program.
- Dr. Bumgardner is Co-Director, the Ohio State Howard Hughes Medical Institute MED into GRAD Scholars Program, which was established to augment the biomedical applications of traditional basic science research programs at the University.
- Dr. Bumgardner is Co-Chair, OSU Clinical Center for Translational Science (CCTS) Research Education Resources and Special Programs committee. This committee has organized CCTS T1 workshop series designed to connect basic scientists and clinicians working in related areas with the intent of forging new research collaborations.

## Community Outreach Programs

- **Liver Transplantation.** Dr. Ken Andreoni has instituted an outreach program, centering around lectures on the role of liver transplantation in end stage liver disease patients, especially those with hepatocellular cancer. This outreach effort is to increase awareness of Ohio State's liver transplant program as a treatment modality for these patients. Dr. Andreoni's lectures are helping to educate colleagues in the medical community to identify patients who are appropriate to be considered as candidates for transplantation. In addition, he is informing the referring physicians and patients on the processes involved in the national UNOS system for liver transplantation.
- **TransChart.** An Internet-based electronic medical record for post-transplant patients and healthcare professionals managing their care, TransChart facilitates better communication and patient outcomes. The use of Transchart by outlying nephrologists is increasing, as its browser-based application for reviewing medical records and charting directly into the record is invaluable in managing patient care.

## Accomplishments in Community Outreach

Faculty members in the division continue to occupy positions of importance within the community of transplantation professionals. The faculty members and their positions are:

### **Kenneth A. Andreoni, MD**

- Ex-Officio Chair, Kidney Committee, United Network for Organ Sharing (UNOS)
- Chair, Subcommittee on National Kidney Paired Donation, UNOS
- Co-Chair, Subcommittee on Liver-Kidney Allocation, UNOS
- Member, Public Policy Committee, American Society of Transplantation
- Medical Advisory Board, Lifeline of Ohio Organ Procurement Agency

### **Ginny L. Bumgardner, MD, PhD**

- Chair, American Society of Transplant Surgeons (ASTS) AdHoc Workforce Committee, which surveyed transplant surgeons to gather information about their demographics, educational and professional background, clinical activity, and professional productivity. The results of the survey have been published in the American Journal of Transplantation.
- Chair, ASTS Awards Committee, American Society of Transplant Surgeons. This committee develops award guidelines and develops new awards for consideration of funding by the ASTS Council. The ASTS Awards committee reviews ASTS research applications annually and awards approximately \$750,000 annually.
- Member, NIH NIAID AIRTC, an NIH study section which reviews training grants and individual research fellowship and career development awards.

- Member, Graduate Research Education and Training (GREAT), a national organization which fosters the exchange of information and ideas among the faculty and administrative leaders of biomedical PhD, MD-PhD and postdoctoral programs.

**Elizabeth Ann Davies, MD**

- Member, Board of Directors, Organ Donor Research Consortium

**Elmahdi A. Elkhammas, MD**

- Chair, Executive Committee; Deputy Editor, Libyan Journal of Medicine
- Chair, Board of Directors, Ibnosina Medical Association
- Member, Executive Committee on Health Reform in Libya
- Board Member, African Center for the Prevention of Infectious Diseases, Tripoli, Libya

**Gregg A. Hadley, PhD**

- Member, Scientific Advisory Committee, Roche Organ Transplantation Research Foundation
- Associate Editor, American Journal of Transplantation
- Editorial Board, Transplantation

**Mitchell L. Henry, MD**

- President, American Society of Transplant Surgeons (ASTS)
- Member, Executive Committee, ASTS
- Chair, Program Specific Reports Task Force, ASTS
- Chair, Philanthropy Committee, ASTS
- Chair, Nominations Committee, ASTS
- Member, Reimbursement Committee, ASTS
- Member, American Journal of Transplantation Management Committee, ASTS
- Senior Advisor, Scientific Studies Committee, ASTS
- Member, Joint Council, American Society of Transplantation/American Society of Transplant Surgeons
- President, Vascular Access Society of the Americas
- Member, Advisory Committee on Organ Transplantation (ACOT), US Department of Health and Human Services
- Medical Director, Lifeline of Ohio Organ Procurement Organization

**Ronald P. Pelletier, MD**

- Assistant Medical Director, Lifeline of Ohio Organ Procurement Organization
- Member, Board of Directors, National Kidney Foundation. The board works to prevent kidney and urinary tract diseases, improve the health and well-being of individuals and families affected by these diseases, and increase the availability of all organs for transplantation.



## Publications

**Kozlowski T, Andreoni KA.** Liver allograft antibody mediated rejection with demonstration of sinusoidal C4d staining and circulating donor specific antibodies. *Liver Transplantation*, 2011 Apr; 17(4): 357-68.

Kozlowski T, Nিকেলেইট V, **Andreoni KA.** Donor-transmitted adenovirus infection causing kidney allograft nephritis and graft loss. *Transplant Infectious Disease*, 2011 Apr; 13(2): 168-73.

Kozlowski, T, **Andreoni K.** Limitations of rituximab/IVIg desensitization protocol in kidney transplantation; is this better than a tincture of time? *Annals of Transplantation*, 2011 Jun 30;16(2):19-25.

Arora H, Thekkekandam J, Tesche L, Sweeting R, Gerber DA, Hayashi PH, **Andreoni K**, Kozlowski T. Long-term survival after 67 hours of anhepatic state due to primary liver allograft nonfunction. *Liver Transplantation*. 2010 Dec; 16(12):1428-33.

Hanaway MJ, Woodle ES, Mulgaonkar S, Peddi VR, Kaufman DB, First MR, Croy R, Jolman, J, **Andreoni K**; INTAC Study Group. Alemtuzumab induction in renal transplantation. *N Engl J Med*. 2011 May 19;364(20):1909-19.

**Andreoni, KA.** No strings attached: good intentions and unintended consequences in promoting kidney donation. *American Journal of Kidney Disease*, 2011 Jul;58(1):A20-2.

**Andreoni, KA.** 2010. Live kidney donors live longer and would you like to buy part of a bridge in Brooklyn? *Archives of Surgery*, 2010 Jul; 145(7):701-702.

**Zimmerer JM, Pham TA, Sanders VM, Bumgardner GL.** CD8+ T cells negatively regulate IL-4-dependent, IgG1 dominant posttransplant alloantibody production. *Journal of Immunology*, 2010 Dec 15; 185(2): 7285-92.

**Florence LS, Feng S, Foster CE, Fryer JP, Olthoff KM, Pomfret E, Sheiner PA, Sanfey H, Bumgardner GL.** Academic careers and lifestyle characteristics of 171 transplant surgeons in the ASTS. *American Journal of Transplantation*, Feb 2011; 11(2): 261-71.

**Martin SI, Dodson B, Wheeler C, Davis J, Pesavento TE, Bumgardner GL.** Monitoring infection with Epstein-Barr virus among seromismatch adult renal transplant recipients. *American Journal of Transplantation*, May 2011; 11(5): 1058-63.

**Elkhammas EA, Singh N.** Towards reforming health care services in developing countries: Taking Libya as an example. *Ibnosina Journal of Medicine and Biomedical Sciences* 2010, 2(4); 149-151.

**Aburawi EH, Elkhammas EA.** International classification of diseases: A call for adaptation in developing countries. *Ibnosina Journal of Medicine and Biomedical Sciences* 2010, 2(2); 51-52.

**Henry, ML.** Surgical training programs. Controversies in dialysis access, San Francisco CA, October 26-29, 2010. *J Vasc Access* 11(3); 213, 2010.

**Henry, ML.** Graft pseudoaneurysms – Surgery is the gold standard. Controversies in dialysis access, San Francisco CA, October 26-29, 2010. *J Vasc Access* 11(3); 240-241, 2010.

**Satoskar AA, Pelletier R, Adams P, Nadasdy GM, Brodsky S, Pesavento T, Henry M, Nadasdy T.** De novo thrombotic microangiopathy in renal allograft biopsies-role of antibody-mediated rejection. *American Journal of Transplantation: Official Journal of The American Society Of Transplantation And The American Society Of Transplant Surgeons*. Vol. 10, no. 8. (August 1): 1804-1811.

## Book Chapters

**Rajab A, Henry ML.** 2010. Surgical Placement of Peritoneal Dialysis Catheters (Dissective Placement). In *ASDIN Core Curriculum for Peritoneal Dialysis Catheter Procedures*. First Edition ed. Clinton, MS: In Salman L, Asif A. Eds. 78-87.

## Visiting Professorships

**Elkhammas, EA.** Liver Transplantation Update. Visiting Professor, Central Tripoli Hospital, Tripoli, Libya, August 4, 2010.

**Elkhammas, EA.** Kidney transplantation and current immunosuppressions. Visiting Professor, University of Tunis, Tunisia, North Africa, November 30, 2010.

**Elkhammas, EA.** Update on liver transplantation. Visiting Professor, University of Tunis, Tunisia, North Africa, November 30, 2010.

**Henry, M.** Biases of a Single Transplant Center. Visiting Professor, University of Nebraska Medical Center, Omaha, Nebraska, March 2, 2011.

**Rajab A.** Complicated Access Patients. Multidisciplinary Conference, Visiting Professor, IBN SINA Hospital, Kuwait, March 22, 2011.

**Rajab A.** Complications of Vascular Access. Visiting Professor, Kuwait, IBN SINA Hospital, Kuwait, March 22, 2011.

**Rajab A.** Transplantation in the Treatment of Diabetes, Visiting Professor, Kuwait, March 23, 2011.

**Rajab A.** Overview of Vascular Access. Visiting Professor, Kuwait, March 23, 2011.

**Rajab A.** Finding the Right Donor for Kidney Recipients, Visiting Professor, Kuwait, March 24, 2011.

## International Visiting Scholars (Observerships)

As Director of the International Physicians Observership Program, Dr. Elkhammas hosted five physicians, whose names, home countries, and dates of observing are shown below:

Mourad Senussi	Libya	August – September, 2010
Yoosif Mohamed Abdalla	Libya	September – October, 2010
Ala-Eddin Samir Sagar	Libya	November – December, 2010
Omar Hussian	Libya	December, 2010 – January, 2011
Malak Tadres	Egypt	June – July, 2011

## International Presentations

**Andreoni KA.** Excellent long term renal function in liver transplant (LT) recipients with fastidious monitoring of tacrolimus level. XXIII International Congress of The Transplantation Society (TTS 2010), Vancouver, British Columbia, Canada, August 15-19, 2010.

**Henry ML.** Keynote address. Charing Cross St. George's Vascular Access Symposium, London, England, April 11, 2011.

**Henry ML.** Moderator, Vascular Access Course. Charing Cross St. George's Vascular Access Symposium, London, England, April 11, 2011.

**Henry ML.** Has the Fistula First breakthrough initiative brought any consensus on how we deliver vascular access in the USA? A surgical point of view. Charing Cross St. George's Vascular Access Symposium, London, England, April 11, 2011.

**Henry ML.** Clinical Examination of AVFs and AVGs. 7th Congress of Vascular Access Society, Istanbul, Turkey, May 5, 2011.

**Henry ML.** The role of the surgeon in preventing vascular access complications. 7th Congress of Vascular Access Society, Istanbul, Turkey, May 6, 2011.

**Henry ML.** Moderator, Free Communications: Do's and Don'ts in Vascular Access. 7th Congress of Vascular Access Society, Istanbul, Turkey, May 7, 2011.

**Henry ML.** Moderator, AV fistula early failure. 7th Congress of Vascular Access Society, Istanbul, Turkey, May 7, 2011.

## National Presentations

**Andreoni KA.** Update on OPTN kidney allocation policy. Advisory Committee on Organ Transplantation, Bethesda, Md., August 19, 2010.

**Andreoni KA.** The United Network for Organ Sharing (UNOS) Pilot, OptumHealth Kidney Paired Donation Conference, Philadelphia, Pa., October 27, 2010.

**Andreoni KA.** Rapid steroid discontinuation protocol and no kidney allograft loss due to BKV nephropathy, American Transplant Congress 2011, Philadelphia, Pa., April 30 – May 4, 2011.

**Andreoni KA.** The role of the OPTN and allocation policy in facilitating the use of high risk organs, American Transplant Congress - Sunrise Symposium: Barriers to the Recovery and Placement of High Risk Organs, Philadelphia, Pa., May 3, 2011.

**Bumgardner GL.** Moderator and Presenter, Joint Plenary & ASTS Awards Ceremony, American Transplant Congress, Philadelphia, Pa., May 1, 2011.

**Buss J, Rajab A.** Exenatide pre-treatment improved islet graft function compared to treatment post-transplant only, American Diabetes Association, Orlando, FL., June 25, 2010.

**Henry ML.** Let's agree to blame bad blood vessels – they won't complain! Controversies in Dialysis Access, San Francisco, Ca., October 27, 2010.

**Henry ML.** What's the role of covered stents in repair of AV graft cannulation breakdown? Controversies in Dialysis Access, San Francisco, Ca., October 28, 2010.

**Henry ML.** Surgical AV access techniques. Controversies in Dialysis Access, San Francisco, Ca., October 28, 2010.

**Henry ML.** Hemodialysis Access: Does integrated ringed support benefit dialysis access grafts? Veith Symposium: Vascular and endovascular issues, techniques and horizons, New York, NY, November 17, 2010.

**Henry ML.** Hemodialysis Access: Secondary Fistulas. Veith Symposium: Vascular and endovascular issues, techniques and horizons, New York, NY, November 17, 2010.

**Henry ML.** Moderator, Hemodialysis Access. Veith Symposium: Vascular and endovascular issues, techniques and horizons, New York, NY, November 17, 2010.

**Henry ML.** Panelist, Keynote Panel Discussion on Reforming Transplant Care, ASTS 11th Annual State of the Art Winter Symposium, Transplant at the Crossroads, Hollywood, FL, January 13-26, 2011.

**Henry ML.** Moderator, Joint Plenary and ASTS Awards Session, 2011 American Transplant Congress, Philadelphia, Pennsylvania, May 3, 2011.

**Henry ML.** Vascular Access Society of the Americas (VASA): Hands-on Practicum on Hemodialysis Access, St. Louis, Mo.

- Moderator, Live OR demonstration, May 20, 2011
- Preceptor, Hands-On Lab: animal lab, May 20, 2011
- Preceptor, Product demonstration, May 20, 2011
- Moderator, General Session, How I do it? Video presentation, May 21, 2011
- Presenter, Forearm AVG Placement Technique, May 21, 2011

**Kozlowski T, Andreoni KA.** Alemtuzumab versus thymoglobulin induction in rapid steroid discontinuation kidney transplantation in a Southeastern US Center, American Transplant Congress 2011, Philadelphia, Pa., April 30 – May 4, 2011.

**Nadasdy T, Albawardi A, Singh N, Nadasdy G, Satoskar A, Brodsky S, Adams P, DiPaola N, Pelletier RP.** IgG subclass distribution in plasma cells infiltrating renal allografts in Plasma Cell Rich Late Acute Rejection (PCRLAR). American Transplant Congress 2011, Philadelphia, Pa., April 30 – May 4, 2011.

**Pelletier RP, Rajab A, Forbes R, Pesavento T, Henry M.** Lack of early CSA exposure after kidney transplantation is a risk factor for de novo post-transplant alloantibody production in African-Americans. American Transplant Congress 2011, Philadelphia, Pa., April 30 – May 4, 2011.

**Pelletier RP, Rajab A, Pesavento T, Henry M.** Clinical variables predictive of 1 and 3 year recipient survival at a single center Production in African-Americans. American Transplant Congress 2011, Philadelphia, Pa., April 30 – May 4, 2011.

**Pelletier RP, Rearick A, Adams P, Hadley GA.** Solid phase crossmatch helps to identify flow crossmatch positive patients at minimal risk for transplantation. American Transplant Congress 2011, Philadelphia, Pa., April 30 – May 4, 2011.

**Rajab, A.** Update on the OSU Islet Transplant Program, Collaborative Islet Transplant Registry (CITR) Meeting, Washington, DC, April 6-7, 2011.

**Rajab, A.** The impact of different immunosuppressive protocols on early and long term outcomes after kidney transplantation, American Transplant Congress 2011, Philadelphia, Pa., April 30 – May 4, 2011.

**Rajab, A.** The incidence and causes of early graft losses in the era of hand-assisted laparoscopic donor nephrectomy, American Transplant Congress 2011, Philadelphia, Pa., April 30 – May 4, 2011.

**Rees M, Kopke J, Pelletier RP, Chan L, Melton L, Rogers J, Pankewycz O, Taber T, Nibhanupudy B, Young C, Smith C, Rees S, Reece L, Leichtman A.** Report from an 80 Transplant Center Multi-Regional Kidney Paired Donation Program, American Transplant Congress 2011, Philadelphia, Pa., April 30 – May 4, 2011.

**Rogers J, Pankewycz O, Taber T, Nibhanupudy B, Leichtman A, Van Buren C, Young C, Gallay B, Boelkins M, Mulgaonkar S, Cooper A, Pelletier RP, Melton L, Lim J, Douzdjian V, Segev D, Montgomery R.** Fifty NEAD Chain Kidney Transplants, American Transplant Congress 2011, Philadelphia, Pa., April 30 – May 4, 2011.

**Segev D, Garonzik Wang, Gloor J, Stegall M, Kapur S, Dunn T, Pelletier RP, Singh P, Posner M, Shaipro R, El-Amm JM, Light J, Marsh C, Melancon JK, allay B, Boelkins M, Mulgaonkar S, Cooper A, Pelletier R, Melton L, Lim J, Douzdjian V, Segev D, Montgomery R.** Risks of HLA incompatible kidney transplants by antibody strength: Initial results from a National study of 603 patients, American Transplant Congress 2011. Philadelphia, Pa., April 30 – May 4, 2011.

**Singh N, Forbes R, Andreoni A, Rajab A, Henry M, Pelletier RP, Pesavento, T.** Living donor transplant mitigates the adverse impact of diabetes status in elderly (>65 years) kidney transplant recipients. American Transplant Congress 2011, Philadelphia, Pa., April 30 – May 4, 2011.

**Thomas Pham MD, Jason Zimmerer PhD, Leslie King, Robert Erbe, Virginia Sanders PhD, Ginny Bumgardner MD, PhD.** IL-4 dependent, IgG1-dominant allogeneic antibody production is regulated by CD8+ T cells in a transplant model. Oral Presentation, 96th Annual Clinical Congress, Washington, DC, October 3-7, 2010.

## Miscellaneous Presentations

**Andreoni KA.** Islet cell and pancreas transplantation: Advances that Affect Us Here and Now. Taking Control of Your Diabetes Conference, Raleigh Convention Center, Raleigh, NC, December 8, 2010.

**Andreoni KA.** Liver transplantation. Grand Rounds, Licking Memorial Hospital, Newark, Oh., January 10, 2011.

**Andreoni KA.** Kidney allocation. Comprehensive Transplant Center Staff Meeting, The Ohio State University, Columbus, Oh., April 4, 2011.

**Bumgardner GL.** Signature Program Translational Science Curriculum Organizational Meeting for ‘Immunology & Inflammation’, The Ohio State University, Columbus, Oh., August 30, 2010.

**Bumgardner GL.** NIH Career Development Grant funding opportunities for PhD and MD scientists (SP TS Curriculum, Immunology and Inflammation Module) The Ohio State University Medical Center, Columbus, Oh., December 3, 2010.

**Bumgardner GL.** First year pulmonary/critical care fellows introduction “Tentatively”. The Ohio State University Medical Center, Columbus, Oh., January 10, 2011.

**Bumgardner GL.** LiteracyStudies@OSU Winter Program-Literacy in Science, Session Chair, The Ohio State University, Humanities Institute, Columbus, Oh., February 11, 2011.

**Bumgardner GL.** 10th Annual OSUMC Research Day, judging & discussion. The Ohio State University, Columbus, Oh., April 7, 2011.

**Bumgardner GL.** Preparing your oral research presentations for DOS Annual Research Conference, Talk to prepare surgery residents for Annual DOS Research Conference. The Ohio State University, Columbus, Oh., April 28, 2011.

**Bumgardner GL.** Med into Grad Scholars Program, 2011 Annual Meeting, Speaker, The Ohio State University, Columbus, Oh., June 24, 2011.

**Davies EA.** Recovery of the multiorgan donor. Grand Rounds, Riverside Methodist Hospital, Department of Surgery, Columbus, Oh., August 17, 2010.

**Davies EA.** Transplantation. Program Advisory Committee Conference Day, General Surgery Residency, Doctor’s Hospital, Columbus, Oh., October 19, 2010.

**Davies EA.** Transplantation. Grand Rounds, Mt Carmel West Hospital, Columbus, Oh., March 10, 2011.

**Davies EA.** Pulsatile preservation. University of Toledo (HDS Wet Lab), Toledo, Oh., April 13, 2011.

**Henry ML.** Surgical placement: Back to basics. Cincinnati Hemodialysis Vascular Access Symposium 2010, Cincinnati, Oh., October 1, 2010.

**Henry ML.** Panelist, panel discussion. Cincinnati Hemodialysis Vascular Access Symposium 2010, Cincinnati, Oh., October 1, 2010.

**Henry ML.** Arteriovenous hemodialysis access. Grand Rounds, Division of Vascular Diseases & Surgery, The Ohio State University, Columbus, Oh., December 20, 2010.

**Rajab A.** Islet cell transplantation; The case for artificial pancreas. Comprehensive Transplant Center; Bench to Bedside Series, The Ohio State University, Columbus, Oh., January 26, 2011.



**Rajab A.** Islet transplant program. Health System Operating Council, The Ohio State University, Columbus, Oh., June 10, 2011.

**Rajab A.** Transplantation in the treatment of diabetes, Grand Rounds, Kettering Medical Center Internal Medicine, Kettering, Oh., November 5, 2010.

**Rajab A.** Transplantation in the treatment of diabetes, Grand Rounds, Licking Memorial Hospital, Newark, Oh., September 27, 2010.

**Rajab A.** Finding the right donor for kidney recipients: living vs. deceased donors, Grand Rounds, MedCentral Health, Mansfield, Oh., August 31, 2010.

## Distinguished Visiting Professors

### **Randall Starling, MD, MPH**

Vice Chairman, Department of Cardiovascular Medicine; Head, Section of Heart Failure and Cardiac Transplant, Cleveland Clinic, Cleveland, Ohio. Comprehensive Transplant Center Conference: “CTOC Heart Transplant Studies: Is There A Role For Induction Therapy?”, October 27, 2010.

### **John S. Najarian, MD**

Professor of Surgery, Regents’ Professor Emeritus, Department of Surgery, University of Minnesota, Minneapolis, Minnesota. The Inaugural Ferguson Lecture, “Current Status of Pancreatic Transplantation”, November 18, 2010.

### **Ronald G. Gill, PhD**

Professor of Surgery and Immunology, Scientific Director CCTCARE, Department of Surgery, University of Colorado, The Charles G. Orosz Memorial Lecture, “Strategies and Barriers to Achieving Allograft Tolerance”, May 11, 2011.

## Division of Vascular Diseases and Surgery



# Vascular Diseases and Surgery



**Patrick S. Vaccaro, MD**

Chief, Division of Vascular Diseases and Surgery

**T**he Division of Vascular Diseases and Surgery has had a year of change. Dr. Mohan Das left our Division in November, 2010 to pursue opportunities in the VA system. Dr. Das had a masterful understanding of human anatomy that was greatly appreciated by the residents and students. His friendly demeanor and great sense of humor will be greatly missed. In March of this year Dr. William Smead retired after more than three decades of service to the Division and the College of Medicine. During his tenure the vascular fellowship was started and he trained 25 fellows. A master surgeon, Dr. Smead awed the surgical residents with his technical skills, high standards and thoughtful approach to patient care for decades. I think back to the time when I was a resident in this program and witnessed firsthand these characteristics, and noted from the onset how the residents gravitated to him. This spring the Division sponsored a symposium in his name that attracted past fellows from as far away as Greece, and a lectureship has been started in his name, as well. He will be impossible to replace and sorely missed.

Our clinical volumes remain high as we increase our complement of endovascular cases. We still do a sizeable proportion of open cases and have expanded our efforts into the care of patients with more complex aortic diseases. In conjunction with the Division of Cardiac Surgery we have proposed the development of an Aortic Center of Excellence (ACE) to enhance patient outcomes and satisfaction, and attract more patients to our system. This will also increase the volume of complex aortic cases for our fellows and make our program more attractive at the national level.

Dr. Starr continues to perform a high clinical volume and has been involved in several regional endovascular training programs. She added another clinical trial concerning low profile thoracic stent grafts to our Division. In June she gave a presentation at the annual meeting of the Society of Vascular Surgery.

Dr. Go also remains very clinically busy and began enrolling patients in his study looking at the role of stem cells in the treatment of patients with end-stage ischemia of the lower extremities. He was voted in as an at-large member of the Board of Managers in the Department this year.

Dr. Vermilion continues to manage our vein center and has expanded our ambulatory treatment of patients with varicose veins with a very high degree of patient satisfaction. He is increasing his involvement as director of utilization for the medical center and will have less clinical responsibility in the upcoming year.

Dr. Satiani directed another highly successful noninvasive vascular laboratory symposium and will be expanding it this year to include a clinical day as well entitled "Controversies in Vascular Disease." He continues to expand his practice management seminar. This year the vascular lab at OSU East was placed under his direction. He was responsible for eight publications.

Dr. Cameron Rink continues to head our basic science research effort and during the past year he mentored Laura Peterson in the lab. She presented her work at the annual resident research day in June. He recently received the Professor T. K. Hunt Award as an outstanding early stage investigator.

Dr. Patrick Vaccaro will assume the role as Chief-of Staff for University Hospital on July 1, 2011. Dr. Vaccaro was also named as the Luther M. Keith Professor of Surgery, a position previously held by Dr. Smead.

Dr. Maria Litzendorf completed her vascular fellowship this year and will be joining our staff on September 1. Her primary emphasis will be in expanding vascular care at OSU East. Also joining our staff will be Dr. Mounir Joseph Haurani who is completing his fellowship at Massachusetts General Hospital. Dr. Joseph Habib will be our second-year fellow, and Dr. Axel Thors from Good Samaritan Hospital in Cincinnati will be our first-year fellow.

## Faculty

### **Patrick S. Vaccaro, MD**

Luther M. Keith Professor of Surgery; Chief, Division of Vascular Diseases and Surgery; Program Director, Division of General Vascular Surgery; Chief of Staff Elect, University Hospital Health System

**BS:** Yale University, New Haven, Ct., 1971

**MD:** University of Cincinnati, Cincinnati, Oh., 1975

**Specialty Training:** General surgery residency, The Ohio State University, Columbus, Oh.; clinical fellowship in cardiothoracic surgery, Baylor College of Medicine, Houston, Tx.

**Appointment:** 2004

**Specialty Interests:** General vascular surgery, endovascular therapy

**Research Interests:** Endothelial cell biology, spinal cord ischemia, clinical trials



Vaccaro

### **B. Mohan Das, MD**

Assistant Professor of Clinical Surgery

**BA:** Madras Christian College, Madras, India, 1967

**MD:** Stanley Medical College, Madras, India, 1974

**Specialty Training:** General surgery residency and vascular surgery fellowship, Albert Einstein Medical Center, Philadelphia, Pa.; vascular surgery fellowship, Cleveland Clinic, Cleveland, Oh.

**Appointment:** 2004

**Specialty Interests:** General vascular surgery, carotid disease, lower extremity and dialysis access surgery

**Research Interests:** Clinical trials, ARK "TRINAM STUDY" for dialysis access



Das

### **Michael R. Go, MD, MS**

Assistant Professor of Surgery

**BS:** Duke University, Durham, N.C., 1996

**MD:** University of Cincinnati, Cincinnati, Oh., 2000

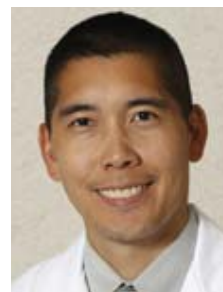
**MS:** The Ohio State University, Columbus, Oh., 2005

**Specialty Training:** General surgery residency, The Ohio State University, Columbus, Oh., 2006; Vascular and endovascular surgery fellowship, University of Pittsburgh Medical Center, Pittsburgh, Pa., 2008

**Appointment:** 2008

**Specialty Interests:** General vascular surgery, endovascular surgery

**Research Interests:** Endovascular surgery, stem cell therapy for limb ischemia



Go

**Cameron L. Rink, PhD**

Assistant Professor of Surgery

**BS:** Hillsdale College, Hillsdale, Mi., 2000

**PhD:** The Ohio State University, Columbus, Oh., 2008

**Post-doctoral Research,** Laboratory of Molecular Medicine, The Ohio State University, 2009

**Graduate Fellow,** Department of Surgery, The Ohio State University, 2008

**Graduate Research Assistant,** Laboratory of Molecular Medicine, The Ohio State University, 2006

**Graduate Fellow,** Human Nutrition, The Ohio State University, 2005

**Appointment:** 2009

**Research Interest:** stroke injury, brain repair and oxygen as a key factor in stroke-mediated pathology



Rink

**Bhagwan Satiani, MD, MBA**

Professor of Clinical Surgery; Director of Non-Invasive Vascular Services

**Undergraduate Degree:** Shah Abdul Latif College, Mirpurkhas, Pakistan, 1964

**MD:** Dow Medical College, University of Karachi, Karachi, Pakistan, 1971

**MBA:** Franklin University, Columbus, Oh., 2002

**Specialty Training:** General surgery residency and trauma fellowship, Emory University, Atlanta, Ga.; vascular surgery fellowship, The Ohio State University Medical Center, Columbus, Oh.

**Appointment:** 2004

**Specialty Interests:** Noninvasive vascular diagnosis, business and legal aspects of medicine

**Research Interests:** Business education for physicians, workforce issues



Satiani

**William L. Smead, MD**

Luther M. Keith Professor of Surgery

**BA:** Amherst College, Amherst, Ma., 1968

**MD:** Vanderbilt University, Nashville, Tn., 1972

**Specialty Training:** General surgery residency, Massachusetts General Hospital, Boston, Ma.; cardiothoracic surgery residency, Southampton Chest Hospital, Southampton, England

**Appointment:** 1978

**Specialty Interests:** General vascular surgery, aortic aneurysmal disease (thoracic and abdominal), renovascular hypertension, carotid disease, pediatric vascular problems

**Research Interests:** Claudication, carotid disease, thoracic outlet syndrome, aortic aneurysmal disease



Smead



**Jean E. Starr, MD**

Associate Professor of Clinical Surgery; Director of Endovascular Services; Associate Program Director

**BS:** The Ohio State University, Columbus, Oh., 1985

**MD:** The Ohio State University, Columbus, Oh., 1989

**Specialty Training:** General surgery residency and vascular surgery fellowship, Cleveland Clinic, Cleveland, Oh.

**Appointment:** 2004

**Specialty Interests:** Endovascular surgery, interventional procedures, carotid stents

**Research Interests:** Endovascular aortic aneurysm repair, carotid stenting



*Starr*

**Blair D. Vermilion, MD**

Associate Professor of Clinical Surgery; Associate Medical Director, Utilization Services

**BS:** Miami University, Oxford, Oh., 1968

**MD:** The Ohio State University, Columbus, Oh., 1972

**Specialty Training:** General surgery residency, Indiana University, Indianapolis, In.; vascular surgery fellowship, St. Anthony Hospital, Columbus, Oh.

**Appointment:** 2004

**Specialty Interests:** General vascular surgery, venous disease

**Research Interests:** Clinical trials



*Vermilion*

## Faculty Departures

**B. Mohan Das, M.D.**

Assistant Professor of Clinical Surgery

November 16, 2010

V.A. Hospital

**William L. Smead, M.D.**

Luther M. Keith Professor of Surgery

March 4, 2011

Retired

## Emeritus Faculty

**William L. Smead, M.D.**

Professor Emeritus of Surgery; Luther M. Keith Professor of Surgery

B.A.: Amherst College, Amherst, Mass., 1968

M.D.: Vanderbilt University, Nashville, Tenn., 1972



## Resident Staff

### **Joseph Habib, MD**

PGY-6

**BS:** West Virginia University, Morgantown, WV, 2001

**MD:** West Virginia University School of Medicine, Morgantown, WV, 2005

### **Maria Litzendorf, MD**

PGY-7

**BS:** College of William and Mary, Williamsburg, Va., 1996

**MD:** Eastern Virginia Medical School, Norfolk, Va., 2003

## Mission

The mission of the Division of Vascular Diseases & Surgery is consistent with that of The Ohio State University College of Medicine and Public Health, and includes the delivery of the highest quality of care to patients throughout Central Ohio suffering with peripheral vascular disease, the contribution to innovations in medicine through translational research and clinical outcomes studies, and the education of medical students and postgraduate trainees. Strategic planning has been a priority for us as we have focused on identifying how we can best fulfill our mission and truly create the future of medicine to improve people's lives. A key element of that focus is our commitment to leadership in personalized health care as well as to help become a high-performance organization and workplace of choice.

## Active Research Grants

**Agarwal AK, Das BM.** Parexel Intl Corp., ADVANTAGE Trial. A phase III, randomized, controlled, open label, multicenter study of the efficacy and safety of Trianan (EG004); an assessment of primary unassisted patency and survival of vascular access grafts in hemodialysis patients with end stage renal disease. November 24, 2009 – December 31, 2015. \$6,542.

**Go MR, Starr JE.** Terumo Medical Corporation, OSPREY Trial. A multicenter clinical trial of the misago self expanding stent system for superficial femoral artery. August 12, 2010 – June 4, 2013. \$2,000.

**Rink CL.** UL1RR025755 – Cerebrovascular recruitment and remodeling in acute ischemic stroke. CCTS Pilot Award. To identify molecular mechanisms of improved cerebrovascular collateral perfusion during acute ischemic stroke by the natural vitamin E analog alpha-tocotrienol. December 1, 2010 – November 30, 2011.

**Starr JE, Go MR.** Abbott Vascular Solutions – HERCULES. Herculink elite cobalt chromium renal stent trial to demonstrate efficacy and safety of the RX Herculink Renal Stent System. January 6, 2009 – November 1, 2012. \$6,750.

**Starr JE, Go MR.** Cook Inc., Zenith TX2 low profile TAA endovascular graft clinical study. July 29, 2010 – July 18, 2017. \$8,750.

**Starr JE, Haddad NJ.** CVRx, Inc., CVRx Rheos pivotal trial. November 12, 2007 – September 1, 2012. \$154,054.

**Starr JE, Vaccaro PS.** Abbott Laboratories – CHOICE Study. Carotid stenting for high surgical risk patients; evaluating outcomes through the collection of clinical evidence. April 26, 2007 – February 27, 2012. \$18,430.

**Starr JE, Vaccaro PS.** Boston Scientific Corp., ORION Study. A trial of the EPIC Nitinol Stent System in the treatment of atherosclerotic lesions in iliac arteries. March 24, 2009 – March 23, 2015. \$23,532.

**Starr JE, Vaccaro PS.** Boston Scientific Corp., SONOMA: NexStent Carotid Stent. A post market approval evaluation study in conjunction with the FilterWire EZ Embolic Protection System. August 17, 2007 – August 16, 2011. \$5,972.

**Starr JE, Vaccaro PS.** Cordis Corp., Sapphire Study. Stenting and angioplasty with protection in patients at high risk for endarterectomy “SAPPHIRE WW”. May 2, 2007 – December 31, 2014. \$32,594.

**Starr JE, Wexler R.** CVRx, Inc., Rheos pivotal trial November 12, 2007 – September 1, 2012. \$27,458.

**Vaccaro PS, Smead WL.** Cook Inc., Zenith TX2 thoracic TAA endovascular graft clinical study. February 18, 2005 – February 17, 2012. \$2,700.

**Vaccaro PS, Starr JE.** Bolton Medical, Inc., A phase II clinical study of the safety and efficacy of the relay thoracic stent graft in patients with thoracic aortic pathologies. August 15, 2007 – August 31, 2012. \$14,079.

## Accomplishments in Research

- Division faculty members published 13 scholarly articles, book chapters and abstracts.
- IRB approval human trial investigating the use of autologous bone marrow derived hematopoietic stem cells with platelet rich plasma to stimulate angiogenesis for the treatment of critical limb ischemia. To our knowledge, this is the first study of its kind in the U.S. to attempt to treat patients who otherwise would need amputation using stem cells combined with platelet-rich plasma. Currently enrolling patients.

- Bolton Relay-initial enrollment is now complete for endovascular arm of the original study plan but we were invited to participate in the continued access portion of the Bolton Relay Trial (Protocol Version I) which will allow 50 additional subjects to be treated with the Relay Thoracic Stent Graft at up to 20 of the investigative sites participating in the trial.
- CVRx Rheos Pivotal – Enrollment is complete and we are now in the follow up phase of the trial. Subjects enrolled in the trial will be followed through FDA approval/disapproval of the device.
- We are currently the third top enroller in the Boston Scientific study called ORION: A Boston Scientific trial of the EPIC Nitinol Stent System in the Treatment of Atherosclerotic Lesions in Iliac Arteries. Closed to enrollment and in the follow up phase.
- The study, HERCULES- Herculink Elite Cobalt Chromium Renal Stent Trial to Demonstrate Efficacy and Safety of the RX Herculink Renal Stent System, sponsored by Abbott Vascular, is closed to enrollment and in the follow up phase of the trial for the next 3 years.
- CHOICE, sponsored by Abbott Vascular, is a carotid stent registry in which we continue to enroll patients. The enrollment for this registry is open ended.
- SAPPHIRE WW, sponsored by Cordis, is a carotid stent registry in which we also currently enroll patients.
- The following studies have been closed this past year: SONOMA – Boston Scientific; PIVOTAL – Medtronic and Cleveland Clinic Foundation.

## Clinical Programs

- Comprehensive general vascular diseases and surgery service
- Endovascular surgery
- Laser surgery for varicose veins
- Arterial surgery clinic
- Venous surgery clinic
- Varicose vein clinic
- Dialysis clinic
- Outlying vascular clinics in Ashland, Bellefontaine, Fayette, Lancaster, London, Marysville, and Upper Sandusky, Ohio

## Accomplishments in Clinical Care

- Offering of outpatient clinic varicose vein treatment instead of hospital-based treatment.
- Dr. Patrick S. Vaccaro is chief of staff of the University Hospital Health System, Columbus, Ohio, 2011-2013.
- Listing of Dr. William L. Smead by *Best Doctors, Inc.*
- Continuation of a high patient satisfaction score. As of February 2011, the overall assessment total was 94.2 percent.
- Use of the Guidant stent system in treatment of blockages in the carotid artery.
- Use of the Rheos Baroflex Hypertension therapy system for treatment to control resistant hypertension.
- Use of Cordis Precise RX and Emboshield carotid stent system.
- Use of autologous bone marrow derived hematopoietic stem cells with platelet rich plasma to stimulate angiogenesis for the treatment of critical limb ischemia.
- Use of the Bolton Relay Thoracic Endograft.
- Use of the TX2 Thoracic Endograft.
- Use of the EPIC Nitinol stent for treatment of iliac artery blockages.

## Clinical Statistics

OR Procedures	2,585
Outpatient Visits	5,126
Admissions	711
Patient Days	3,008
Average Length of Stay (Days)	4.40

## Educational Programs

- Two-year fellowship in vascular diseases and surgery, accredited in 2006 by the Accreditation Council for Graduate Medical Education.
- Comprehensive rotation in vascular diseases and surgery for junior and senior general surgery residents.
- Sub-internship in vascular diseases and surgery.
- Vascular Grand Rounds approved for Category 1 CME clinical and basic science topics discussed (bi-weekly)
- Divisional Morbidity and Mortality Conference (biweekly), Pre-Operative Case Conference (monthly), Journal Club (monthly), Endovascular M&M (monthly), Angiogram Conference (monthly), Interesting Case Conference (monthly), Research Update Conference (quarterly), Vascular Lab Lecture (quarterly) and outside speaker conference (quarterly).
- Seminar in Practice Management. Dr. Bhagwan Satiani presents this monthly business seminar to the students and residents in the Department of Surgery.

## Accomplishments in Education

- Completion of our two-year fellowship training program in vascular surgery by Dr. Maria Litzendorf.
- Dr. Joseph Habib joined the vascular surgery team as the junior fellow in our ACGME approved fellowship training program.
- Diane Gawron, RN attended the 29th Society for Vascular Nursing Annual meeting, in Nashville, Tn., May 5-7, 2011.
- Tammy Gregio, RN attended the Trauma in the Tropics Cruise and Educational conference, in St. Thomas, Virgin Islands, March 22, 2011.
- Cameron Rink, PhD was awarded with the Professor T.K. Hunt Award for outstanding Early Stage Investigator at the 4th Annual Translational to Clinical (T2C) Wound Care Conference here at The Ohio State University Medical Center; he was accepted as a member of the Oxygen Club of California; currently mentoring/training in research: Dr. Laura Peterson, Clinical Fellow/Resident and Masters of Medical Science trainee. Dr. Peterson is contributing to research on cerebrovascular collateral circulation during ischemic stroke; Harsheh Amin, pre-medical student at Capital University with aspirations of joining the medical student class of 2012 at The Ohio State University Medical Center. Harsheh has

been training in small animal behavior testing and sensorimotor functional analysis following ischemic stroke; and Dr. Zubin Shah, he received training in immunohistochemistry, cryosectioning, and high performance liquid chromatography. In addition Zubin was mentored in science writing and figure preparation for manuscripts.

- Dr. Joseph Habib attended the Gore TAG Thoracic Endoprosthesis course, in Cleveland, Oh., January 12, 2011.
- Dr. Maria Litzendorf attended the Society for Vascular Surgery annual meeting, in Chicago, Il., June 16 – 18, 2011; the 39th Society for Clinical Vascular Surgery meeting, Orlando, Fl., March 15 – 19, 2011; the Medtronic 2011 Boost EVAR Essentials course, in Cleveland, Oh., March 8, 2011; the VIVA (Vascular Interventional Advances) meeting, in Las Vegas, Nv., October 19 – 22, 2010 and the 28th Annual UCLA Symposium: A Comprehensive Review and Update of What's New in Vascular and Endovascular Surgery meeting, in Hollywood, Ca., September 13- 16, 2010.
- Dr. Laura Peterson was awarded the Society for Vascular Surgery Travel Scholarship and attended the Society for Vascular Surgery annual meeting, 2011 Fellow/General Surgery Resident/Medical Student Educational Program, in Chicago, Il., June 16 – 18, 2011;
- Dawn Sagle attended the Association of Vascular Surgery Coordinators meeting, in Chicago, Il., March 25-26, 2011.
- Dr. Bhagwan Satiani attended the Society for Vascular Surgery annual meeting, in Chicago, Il., June 16 – 18, 2011; the Central Surgical Association meeting, in Detroit, Mich., March 17 – 19, 2011; the Society Vascular Surgery Clinical Practice Council meeting, in Chicago, Il., December 17, 2010 and the American Surgical Association meeting, in Chicago, Il., October 12 – 13, 2010.
- Dr. William Smead attended the 96th Annual American College of Surgeons meeting, in Washington D.C. October 3 – 7, 2010.
- Dr. Jean Starr MD accepted preceptorship from College of Nursing at The Ohio State University for their Adult Nurse Practitioner program; invited on the first Talent Management and Development Academy (educational seminars and exercises); she also attended the Abbott Vascular Endovascular Medical Advisory Board meeting, in Chicago, Il., June 24 – 25, 2011; the Society for Vascular Surgery annual meeting, in Chicago, Il., June 16 – 18, 2011; the American College of Surgeons: Surgeons as Leaders from OR to Boardroom meeting, in Chicago, Il., June 5 – 8, 2011; the Medtronic Fellows Technology Exchange meeting, in Minneapolis, Mn., May 13 – 15, 2011; the Society for Vascular Surgery Women's Leadership Retreat, in Chicago, Il., April 7 – 9, 2011; Abbott Vascular Endovascular Medical Advisory Board meeting, in San Francisco, Ca., November 4 – 6, 2010; the 26th Annual Cardiovascular conference held at St. Luke's Regional Medical Center in Sioux City, Ia., on October 19, 2010 and the Society for Vascular Surgery Coding and Reimbursement for Vascular Surgeons workshop, in Chicago, Il., October 8, 2010.

- Dr. Patrick S. Vaccaro MD was appointed Luther M. Keith Professor in Surgery; attended the Association of Program Director in Vascular Surgery meeting, in Chicago, Il., March 25 – 26, 2011.
- Dr. Blair Vermilion attended the 8th Annual National Association of Physician Advisor meeting Optimizing the role of the Physician Advisor, in Las Vegas, Nv., March 29 – 31, 2011 and the American Venous Forum in San Diego, Cal., February 23 – 26, 2011.
- The Division of Vascular Diseases and Surgery held a celebration entitled the William L. Smead, MD Symposium on May 21, 2011 honoring Dr. William Smead for 33 years of service at The Ohio State University Medical Center. Dr. William Smead trained 25 fellows during his leadership and has left an indelible impact on the vascular surgery program.
- The Department of Surgery created a William L. Smead, MD Lectureship fund honoring Dr. Smead.

## Community Outreach Programs

Presentation of regular lectures on vascular diseases to The Ohio State University Medical Center, College of Medicine, Department of Surgery, hospital board meeting, medical staff meetings, grand rounds, M&M, medical society meetings, and the division's vascular symposium.

## Accomplishments in Community Outreach

- Dr. Bhagwan Satiani was elected President of South Asian American Vascular Society (SAAVS); co-director, planner and moderator of the 3rd Annual Non-Invasive Vascular Symposium, at The Ohio State University Medical Center, Columbus, Oh., October 16, 2010;
- Cameron Rink, Phd invited peer reviewer for Journal of Neuroimmunology, review editor for Frontiers in Oxidant Physiology, invited peer review of Journal of Physiological Genomics. Member of the College of Medicine Graduate Studies Committee (Interdisciplinary Doctoral Program in Human Nutrition). Grant review for the Davis Bremer Award and the Center for Clinical and Translational Science, Novel Clinical and Translational Methodologies Pilot Program all here at The Ohio State University Medical Center. Judging at the 8th Annual Russell Klein Research Symposium, 16 Annual Denman Undergraduate Research Forum, 10th Annual OSUMC Trainee Research Day, 4th Annual Translational to Clinical (T2C) Wound Care Conference all here at The Ohio State University Medical Center.
- Dr. Jean Starr participated in Columbus Torah Academy Senior Internship (mentoring); mentor at the Society for Vascular Surgery Annual Meeting, General Surgery Surgical Skills Competition on June 17, 2011 in Chicago, Il.; member of the 2011-2012 Clinical Resource Utilization Committee, The Ohio State University Health System.



- Dr. Patrick Vaccaro member of the Practitioner Evaluation Committee 2011-2012 for The Ohio State University Medical Center Health System; conducted fellowship interviews for the American College of Surgeons Ohio District #3 Committee on Applicants, April 16, 2011.

## Publications

**Baetz L, Satiani B.** Palmar archer identification during evaluation for radial artery harvest. *Vascular and Endovascular Surgery*, April 2011 45(3):255-257.

**Christoforidis GA, Rink C, Kontzialis MS, Mohammad Y, Koch RM, Abduljalil AM, Bergdall VK, Roy S, Khanna S, Slivka AP, Knopp MV, Sen CK.** An endovascular canine middle cerebral artery occlusion model for the study of leptomeningeal collateral recruitment. *Invest Radiol*. 2011;46:34-40.

Firstenberg MS, Blais D, Abel E, **Go MR.** Superior vena cava bypass with cryopreserved ascending aorta allograft. *Ann Thorac Surg*. 2011 Mar; 91: 905-7.

Nau P, **Go MR.** A 65-year-old woman with persistent crampy abdominal pain. *Society for Vascular Medicine Interactive Case Study*. 2010 Dec; [http://www.vascularmed.org/case\\_studies/archive.cfm](http://www.vascularmed.org/case_studies/archive.cfm)

**Rink C, Gnyawali S, Peterson L, Khanna S.** Oxygen-inducible glutamate oxaloacetate transaminase as protective switch transforming neurotoxic glutamate to metabolic fuel during acute ischemic stroke. *Antioxid Redox Signal*. 2011;14:1777-1785.

**Rink C, Khanna S.** MicroRNA in Ischemic Stroke Etiology and Pathology. *Physiological Genomics*. 2011;43:521-528.

**Rink C, Khanna S.** Significance of brain tissue oxygenation and the arachidonic acid cascade in stroke. *Antioxid Redox Signal*. 2011;14:1889-1903.

**Rink C, Roy S, Khan M, Ananth P, Kuppusamy P, Sen CK, Khanna S.** Oxygen-sensitive outcomes and gene expression in acute ischemic stroke. *J Cerebral Blood Flow Metab*. 2010 Jul;30(7):1275-87. Epub 2010 Feb 10.

Santin B, Guy G, Bourekas E, **Go MR.** Endovascular therapy for subclavian artery rupture in von Recklinghausen disease. *Vascular and Endovascular Surgery*. 2010 Nov; 44: 714-7.

**Santin B, Satiani B, Fries R.** "Clinical characteristics of patients with isolated calf vein thrombosis in a large teaching hospital. **International Journal of Vascular Medicine**. Volume 2011 (2011), Article ID 414093, 4 pagesdoi:10.1155/2011/414093. <http://www.hindawi.com/journals/ijvm/2011/414093>

**Sen CK, Rink C, Khanna S.** Palm oil-derived natural vitamin E  $\alpha$ -tocotrienol in brain health and disease. *J Am Coll Nutr*. 2010;29:314S-323S.

**Shakhnovich I, Kiser D, Satiani B.** Importance of validation of duplex ultrasonography in identifying moderate and severe carotid artery stenosis. *Vascular and Endovascular Surgery* 2010; 44(6) 483-488.

**Satiani B.** Understanding the RVU in Practice Management: Getting the most out of using it in your practice. <http://www.kareo.com/gettingpaid/2011/02/understanding-the-rvu-in-practice-management-getting-the-most-out-of-using-it-in-your-practice/> February 9, 2011.

**Satiani B.** Clinical Characteristics of Patients with Isolated Calf Vein Thrombosis in a Large Teaching Hospital. *International Journal of Vascular Medicine*, vol. 2011, Article ID 414093, 4 pages, 2011. doi:10.1155/2011/414093.

**Satiani B.** Impact of The Patient Protection and Affordable Care Act on vascular imaging. *Annals of Vascular Surgery*. (Accepted for publication)

**Satiani B, Williams T.** Surgeon Recruitment Dogs Rural Hospital. Internal Medicine News, News and views that matter to physicians, International Medical News Group, LLC digital network, March 29, 2011.

**Satiani B, Williams TE, Ellison EC.** The impact of employment of part time surgeons on the expected surgeon shortage. *Journal of the American College of Surgeons*. (Accepted for publication)

**Satiani B, Williams TE, Landon MB, Ellison EC, Gabbe SG.** A Critical Deficit of OBGYN Surgeons in the U.S by 2030. *Surgical Science*, 2011, 2, 95-101. Published Online April 2011.

**Starr JE.** Required skills and interdisciplinary teams in starting a TEVAR practice. *J Vasc Surg* 2010;52:45S-49S.

## Abstracts

**Starr JE, Litzendorf M:** Ultrasound-accelerated thrombolysis is superior to catheter-directed thrombolysis for the treatment of acute limb ischemia. Presented at 2011 Society for Vascular Surgery Annual Meeting, Rapid Paced Paper Session II, Chicago, IL., June 16-18, 2011.

## Book Chapters

**Geroulakos G, Smead WL.** Chronic Visceral Ischemia. *Vascular Surgery: Cases, Questions and Commentaries Third Edition*, DOI:10.1007/978-1-84996-365-5\_27, Springer-Verlag London Limited 2011.

**Rink C, Khanna S, Sen CK.** Arachidonic acid metabolism and lipid peroxidation in stroke: alpha-tocotrienol as a unique therapeutic agent. *Studies on Experimental Models: Oxidative Stress in Applied Basic Research and Clinical Practice*. Humana Press, 2011. Volume 1:pp.63-90. ISBN 978-1-60761-955-0.

**Starr JE, Vaccaro PS.** Endovascular Management of Non-Healing Leg Ulceration. *Vascular Surgery: Cases, Questions and Commentaries Third Edition*, DOI:10.1007/978-1-84996-365-5\_20, Springer-Verlag London Limited 2011.

## Interdisciplinary Lectures

**Scott Maffett, M.D.**, Assistant Professor, The Ohio State University Medical Center, spoke at the Division of Vascular Diseases and Surgery, Grand Rounds, Columbus, Oh., topic “Pre-Operative cardiac work-up, cardiac complications after surgery” on June 6, 2011.

**Henry Mitchell, M.D.**, Division Director, Transplant Surgery; Deputy Director for Surgical Services; Associate Medical Director, Lifeline of Ohio Organ Procurement Agency, The Ohio State University Medical Center, spoke at the Division of Vascular Diseases and Surgery, Grand Rounds, Columbus, Oh., topic “Arteriovenous Hemodialysis Access” on December 20, 2010.

**Andrew Slivka, M.D.**, Professor of Neurology; Director, Stroke Division, The Ohio State University Medical Center, spoke at the Division of Vascular Diseases and Surgery, Grand Rounds, Columbus, Oh., topic “Update on Interventional Treatment of Carotid Artery Disease” on September 27, 2010.

## International Presentations

**Peterson L, Khanna S, Heigel M, Sen CK, Rink C.** Mechanisms of natural vitamin E alpha-tocotrienol in pial collateral recruitment and remodeling during acute ischemic stroke. International Stroke Conference of the American Heart Association, Los Angeles, Ca., February 9, 2011.

**Rink C.** Preclinical studies on Tocotrienol Against Stroke, 1st International Conference on Tocotrienols and Chronic Diseases. Las Vegas, Nv., July 29, 2010.

**Rink C, Christoforidis G, Khanna S, Roy S, Sen CK.** Natural vitamin E, alpha-tocotrienol, attenuates stroke injury and improves pial collateral circulation during cerebral ischemia. Society for Neuroscience 40th Annual Meeting, San Diego, Ca., November 15, 2010.

## National Presentations

**Heigel M, Khanna S, Roy S, Khan M, Kuppusamy P, Sen CK, Rink C.** Characterization of the therapeutic potential for supplemental oxygen therapy in acute ischemic stroke. The Ohio State University Medical Center, 4th Annual Translational to Clinical (T2C) Wound Care Conference, Columbus, Oh., April 8, 2011.

**Itani K, Satiani B.** The International Medical Graduate General Surgeon and how best to encourage their contribution to answering the public need for General Surgeons. General Surgery Think Tank meeting sponsored by the American Surgical Association Foundation, Chicago, Il., October 12-13, 2010.

**Litzendorf M, Starr JE, Satiani B, Notter K.** Ultrasound-Accelerated Thrombolysis is Superior to Catheter-Directed Thrombolysis for the Treatment of Acute Limb Ischemia Presented at the 2011 Vascular Annual Meeting of the Society for Vascular Surgery, Chicago, Il., June 18, 2011.

**Peterson L, Heigel M, Rink C.** Clot size controlled model of limb deep vein thrombosis. The Ohio State University Medical Center, 4th Annual Translational to Clinical (T2C) Wound Care Conference, Columbus, Oh., April 8, 2011.

**Rink C, Christoforidis G, Peterson L, Khanna S, Roy S, Sen CK.** Tocotrienol vitamin E improves collateral circulation during focal cerebral ischemia attenuating stroke injury. The Ohio State University Medical Center, 4th Annual Translational to Clinical (T2C) Wound Care Conference, Columbus, Oh., April 8, 2011.

**Rink C, Roy S, Peterson L, Sen CK, Khanna S.** The Janus face of glutamate in the brain: the glucose- and oxygen- dependent role reversal from neurotoxin to neuroprotectant. The Ohio State University Medical Center, 4th Annual Translational to Clinical (T2C) Wound Care Conference, Columbus, Oh., April 8, 2011.

**Rink C.** a-Tocotrienol: The Natural Vitamin E Against Stroke. 102nd American Oil Chemists' Society meeting, Cincinnati, Oh., May 3, 2011.

**Satiani B.** Teaching life lessons to immigrant children. GenerAsian Next Youth Leadership Conference, Stand Up Against Youth Violence (SUAYV), OSU Ohio Union, Columbus, Oh., August 7, 2010.

**Satiani B.** Special issues for International Medical Graduates. General Surgery Think Tank meeting sponsored by the American Surgical Association Foundation, Chicago, Il., October 12-13, 2010.

**Satiani B.** Locum and itinerant General Surgery. General Surgery Think Tank meeting sponsored by the American Association Surgical Foundation, Chicago, Il., October 12-13, 2010.

**Satiani B.** Where have we been and where are we going? An overview of physician alignment trends. Presented at the 2011 Vascular Annual Meeting of the Society for Vascular Surgery, Breakfast Session on Practice Paradigms, Chicago, Il., June 16, 2011.

**Satiani B.** Can we utilize International Medical; Graduates to address the upcoming physician shortage? Presented at the Second Annual Meeting of the South Asian American Vascular Society Meeting, Chicago, Il., June 16, 2011.

**Satiani B, Williams TE, Ellison CE.** A comparison of future recruitment needs in rural and urban hospitals: the rural imperative. 68th Annual Central Surgical Association meeting, Detroit, Mi., March 17, 2011.

**Starr JE.** Starting a TEVAR Practice, Required Skills, Interdisciplinary Teams and Case Presentation: Device Delivery Special Considerations at the Midwestern Vascular Surgical Society Advanced TEVAR course, Madison Wi., December 2, 2010.

**Starr JE.** Ultrasound-accelerated thrombolysis is superior to catheter-directed thrombolysis for the treatment of acute limb ischemia. 2011 Society for Vascular Surgery annual meeting Rapid Paced Paper Session II, Chicago, Il., June 18, 2011.

## Local Presentations

**Rink C.** Preclinical Models of Acute Ischemic Stroke. The Ohio State University Regenerative Medicine and Cell Based Therapies Retreat, Perrysville, Oh., September 17, 2010.

**Rink C.** The Janus Face of Oxygen Therapy in Acute Ischemic Stroke. Burke/Cornell Medical Research Institute Seminar Series, Burke/Cornell Rehabilitation Hospital and Research Institute, White Plains, NY, June 29, 2010.

**Starr JE.** Updates on Management of Thoracic Abdominal Aortic Disease. 6th Annual Cardiology Update Conference, Sioux City, Ia., October 20, 2010.

## Miscellaneous Presentations

**Das BM.** Venous Access. The Ohio State University Medical Center, Division of Vascular Diseases and Surgery, Grand Rounds, Columbus, Oh., August 2, 2010.

**Das BM.** Moderator – The Ohio State University Medical Center, Department of Surgery Professor Rounds, Columbus, Oh., October 14, 2010.

**Go MR.** Thoracic Endografts: Update for Sonographers. The Ohio State University Medical Center, 3rd Non-Invasive Vascular Symposium, Columbus, Oh., October 16, 2010.

**Go MR.** Aneurysmal Disease of the Abdominal Aorta. The Ohio State University Medical Center, Division of Vascular Diseases and Surgery, Grand Rounds, Columbus, Oh., October 25, 2010.

**Go MR.** Moderator –The Ohio State University Medical Center, Department of Surgery Professor Rounds, Columbus, Oh., December 9, 2010.

**Go MR.** Arterial Disease. The Ohio State University Medical Center, Department of Surgery, Basic Science Lecture/Gen Surg Conference, Columbus, Oh., February 17, 2011.

**Go MR.** Peripheral Vascular Disease. The Ohio State University Medical Center, Department of Surgery, Professor Conference, Columbus, Oh., March 10, 2011.

**Go MR.** Anastomosis – Vascular. The Ohio State University Medical Center, Department of Surgery, Surgical Skills Lab, Columbus, Oh., March 15, 2011.

**Go MR.** Modulation of angiogenesis for the treatment of peripheral vascular disease. The Ohio State University Medical Center, William L. Smead, MD Symposium, Columbus, Oh., May 21, 2011.

**Habib J.** Basic Mechanisms in Mesenteric Ischemia. The Ohio State University Medical Center, Division of Vascular Diseases and Surgery, Grand Rounds, Columbus, Oh., September 13, 2010.

**Habib J.** Palmar Arch Testing. The Ohio State University Medical Center, 3rd Non-Invasive Vascular Symposium, Columbus, Oh., October 16, 2010.

**Habib J.** Embryology of Vascular System. The Ohio State University Medical Center, Division of Vascular Diseases and Surgery, Grand Rounds, Columbus, Oh., June 20, 2011.

**Litzendorf ME.** Skeletal Muscle Ischemia and Reperfusion: Mechanisms of Injury and Intervention. The Ohio State University Medical Center, Division of Vascular Diseases and Surgery, Grand Rounds, Columbus, Oh., October 11, 2010.

**Litzendorf ME.** Neuropathic and biomechanical Etiology of Foot Ulceration in Diabetics. The Ohio State University Medical Center, Division of Vascular Diseases and Surgery, Grand Rounds, Columbus, Oh., February 7, 2011.

**Litzendorf ME.** Visceral Ischemia. The Ohio State University Medical Center, Division of Vascular Diseases and Surgery, Grand Rounds, Columbus, Oh., May 16, 2011.

**Litzendorf ME.** Thrombolytic RX. The Ohio State University Medical Center, William L. Smead, MD Symposium, Columbus, Oh., May 21, 2011.

**Rink C.** The Janus Face of Oxygen Therapy in Acute Ischemic Stroke. The Ohio State University Interdisciplinary Program in Human Nutrition Seminar Series, Columbus, Oh., November 11, 2010.

**Rink C.** Tocotrienol vitamin E improves collateral circulation during focal ischemia attenuating stroke injury. The Ohio State University Medical Center, William L. Smead, MD Symposium, Columbus, Oh., May 21, 2011.

**Satiani B.** Interesting cases: Test your knowledge. The Ohio State University Medical Center, 3rd Non-Invasive Vascular Symposium, Columbus, Oh., October 16, 2010.

**Satiani B.** Venous Disease. The Ohio State University Medical Center, Department of Surgery, Professor Conference/General Surgery Resident Conference, Columbus, Oh., February 10, 2011.

**Satiani B.** Where have we been and where are we going? An overview of physician alignment trends. The Ohio State University Medical Center, William L. Smead, MD Symposium, Columbus, Oh., May 21, 2011.

**Satiani BS.** Peripheral Arterial Duplex Examination. The Ohio State University Medical Center, Division of Vascular Diseases and Surgery, Grand Rounds, Columbus, Oh., May 23, 2011.

**Smead WL.** Vascular Grafts. The Ohio State University Medical Center, Division of Vascular Diseases and Surgery, Grand Rounds, Columbus, Oh., August 23, 2010.

**Smead WL.** Hemodynamic Basis of Portal Hypertension. The Ohio State University Medical Center, Division of Vascular Diseases and Surgery, Grand Rounds, Columbus, Oh., January 3, 2011.

**Starr JE.** Hemostasis, Surgical Bleeding and Transfusion. The Ohio State University Medical Center, Basic Science Lecture/General Surgery Resident Conference, Columbus, Oh., August 5, 2010.

**Starr JE.** Basic Science of Renovascular Hypertension. The Ohio State University Medical Center, Division of Vascular Diseases and Surgery, Grand Rounds, Columbus, Oh., August 9, 2010.

**Starr JE.** Intravascular Ultrasound. The Ohio State University Medical Center, 3rd Non-Invasive Vascular Symposium, Columbus, Oh., October 16, 2010.

**Starr JE.** Cerebral Blood Flow. The Ohio State University Medical Center, Division of Vascular Diseases and Surgery, Grand Rounds, Columbus, Oh., December 6, 2010.

**Starr JE.** Current Management of Carotid Stenosis. The Ohio State University Medical Center, Ross Heart Hospital 5th Floor inservice, Columbus, Oh., January 5, 2011.



**Starr JE.** Pre-Med introduction to a career as a surgeon. The Ohio State University Medical Center, Pre-Med Club, Columbus, Oh., January 31, 2011.

**Starr JE.** Carotid Artery Disease. The Ohio State University Medical Center, Division of Vascular Diseases and Surgery, Grand Rounds, Columbus, Oh., May 2, 2011.

**Starr JE.** What's new at the "U": Endovascular update. The Ohio State University Medical Center, William L. Smead, MD Symposium, Columbus, Oh., May 21, 2011.

**Vaccaro PS.** Arteriovenous Malformation and Arteriovenous Fistula. The Ohio State University Medical Center, Division of Vascular Diseases and Surgery, Grand Rounds, Columbus, Oh., July 12, 2010.

**Vaccaro PS.** Moderator – The Ohio State University Medical Center, Department of Surgery Professor Rounds, Columbus, Oh., August 12, 2010.

**Vaccaro PS.** Medical Staff Administration. The Ohio State University Medical Center, New Physician Orientation, Columbus, Oh., September 9, 2010.

**Vaccaro PS.** Portal Hypertension. The Ohio State University Medical Center, Department of Surgery/ Professor Conference, General Surgery Resident Conference, Columbus, Oh., September 23, 2010.

**Vaccaro PS.** Abdominal Cavity. The Ohio State University Medical Center, First Year Medical Student Anatomy Dissections, Columbus, Oh., September 27, 2010.

**Vaccaro PS.** Clinical Leadership Council For Quality and Patient Safety Meeting, The Ohio State University Medical Center, Columbus, Oh., September 29, 2010.

**Vaccaro PS.** Spinal Cord Ischemia Associated with High Aortic Clamping: Methods of Protection. The Ohio State University Medical Center, Division of Vascular Diseases and Surgery, Grand Rounds, Columbus, Oh., November 22, 2010.

**Vaccaro PS.** Principles of Amputation Surgery. The Ohio State University Medical Center, Department of PM&R Prosthetics and Orthotics Lecture, Columbus, Oh., December 29, 2010.

**Vaccaro PS.** Aorta and Great Vessels. The Ohio State University Medical Center, Department of Surgery, Professor Conference/General Surgery Conference, Columbus, Oh., February 24, 2011

**Vaccaro PS.** Moderator - The Ohio State University Medical Center, 2011 Department of Surgery 16th Annual Surgical Research Conference, Columbus, Oh., June 10, 2011.

**Vermilion BD.** Chronic Venous Disease and Pulmonary Embolism. The Ohio State University Medical Center, MedNet 21, CME Webcast, Columbus, Oh., October 25, 2010.

**Vermilion BD.** Arterial and Vascular Graft Infection. The Ohio State University Medical Center, Division of Vascular Diseases and Surgery, Grand Rounds, Columbus, Oh., November 8, 2010.

**Vermilion BD.** Moderator – The Ohio State University Medical Center, Department of Surgery, Professor Rounds, Columbus, Oh., May 19, 2011.

## Distinguished Visitors

**Larry Carey, MD,** Emeritus Professor of Surgery; Associate Chief of Staff for Education at University of South Florida. How it started and how it went. The Ohio State University Medical Center, William L. Smead, MD Symposium, Columbus, Oh., May 21, 2011.

**William Finkelmeier, MD,** National Director, Vein Solutions. Smeadism and their impact on my career. The Ohio State University Medical Center, William L. Smead, MD Symposium, Columbus, Oh., May 21, 2011.

**George Geroulakos, MD, FRCS, PhD,** Vascular Surgeon, Charing Cross Hospital; President of the Vascular Section of The Royal Society of Medicine in London. Randomized controlled trial of ultrasound guided from sclerotherapy combined with sapheno-femoral ligation compared to surgical treatment of varicose veins; five year results. The Ohio State University Medical Center, William L. Smead, MD Symposium, Columbus, Oh., May 21, 2011.

**John Hallett, MD,** Clinical Professor of Surgery; Medical Director, St. Francis Heart and Vascular Center, Medical University of South Carolina. Creating heart and vascular centers that work: negotiating troubled waters. The Ohio State University Medical Center, William L. Smead, MD Symposium, Columbus, Oh., May 21, 2011.

**Steven Leers, MD,** Assistant Professor of Surgery, University of Pittsburgh Medical Center. Duplex Ultrasound after EVAR and Venous Reflux and CVI Testing. The Ohio State University Medical Center, 3rd Non-Invasive Vascular Symposium, Columbus, Oh., October 16, 2010.

**Larry Raber, RDMS, RVT, RT.** Cleveland Clinic Hospital. Transcranial Doppler. The Ohio State University Medical Center, 3rd Non-Invasive Vascular Symposium, Columbus, Oh., October 16, 2010.

**Michael Schwebler, MBA, RVT, FSVU.** Midwest Ultrasound. Reimbursement/legislative update 2010. The Ohio State University Medical Center, 3rd Non-Invasive Vascular Symposium, Columbus, Oh., October 16, 2010.

**Robert Scissons, RVT.** Jobst Vascular Center. Evaluation of the tortuous ICA and The arterial Doppler waveform confusion. The Ohio State University Medical Center, 3rd Non-Invasive Vascular Symposium, Columbus, Oh., October 16, 2010.

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